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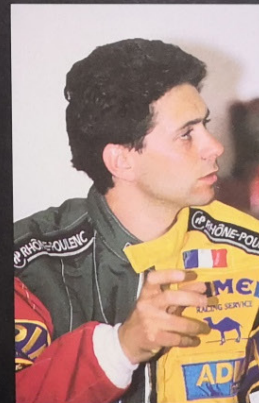
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Top right: Martin Donnelly, a relaxed replacement in France for the injured Derek Warwick (Keith Sutton)

Top left: Eric Bernard, briefly in at Larrousse until Michele Alboreto's move (John Townsend)

Bottom right: Jean Alesi, starring in his first drive for Tyrrell at Paul Ricard (LAT)

Bottom left: Emanuele Pirro, enjoying the benefit of Johnny Herbert's advice as the latter temporarily vacated the Benetton cockpit (Keith Sutton)

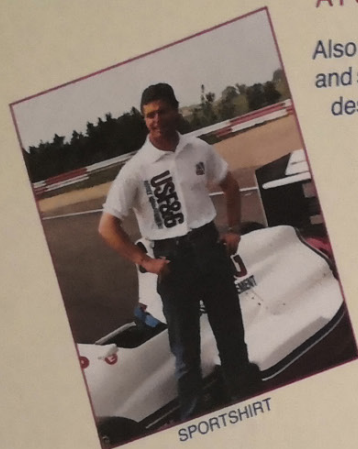
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GUY SALMON  
JAGUAR



(John Townsend)

Two cheers for the little guys! While the mighty men at the sharp end of the pit lane were wondering where the next million was coming from as they eyed next season's seats, down among the tail-end Charlies Silverstone seemed like the Promised Land. For the first time in their five-year Formula 1 history, the Minardi team saw both cars not only finish a Grand Prix, but actually finish together in the points as Pierluigi Martini and Luis Perez Sala came home fifth and sixth respectively. This catapulted Minardi into joint 11th place in the Constructors' Championship and spared them the ordeal of having to pre-qualify for the remainder of the season.

Giancarlo Minardi's involvement in single-seater racing goes back as far as 1974, though he became a constructor in his own right at the start of the present decade. Thanks in no small part to the vision of his company's vice-president Piero Mancini, the Motori Moderni facility near Novara was built specifically to generate the Minardi Formula 1 engine project, the team running with a V6 turbo unit in all but the first two of its 60 Grands Prix to the end of 1988.

The sum total of Minardi's efforts, until the end of that season, was one point garnered by Pierluigi Martini in Detroit last year, the first race for the little Italian on returning to the team with whom his Formula 1 career began in Brazil in 1985. Martini, on that Detroit day, was replacing Spain's Adrian Campos, who had the honesty to admit that money wasn't all and that his talents were not up to racing at the pinnacle of the sport.

Happily for Spain, Luis Perez Sala remained; and Silverstone '89 brought the biggest smile to a Barcelona face since that remarkable city landed the 1992 Olympic Games. Sala

is one of the quieter men in Grand Prix racing, but even he could not contain the joy of having at last made his mark, however small, on the F1 scene. While the bubbly was being wasted on the rostrum, champagne corks were also popping in the outer reaches of the pit lane where in the normal course of events the only noise is that of rough-sounding engines and the loading-up of trucks. Through all the trials and tribulations of running a small team in a multi-million dollar environment, Minardi have worked hard, kept their heads up and presented one of the more acceptable faces of Formula 1. Nice to know the little guys can have their day as well, and that Minardi had got their timing just right. As Martini said, if they can do it on a 150 mph circuit like Silverstone, they can do it anywhere, and perhaps the handsome-looking M189 would begin to reap more consistent rewards.

Dog-wheels on his McLaren — and Ayrton Senna was again dogged by bad luck as Prost moved 20 points clear at Silverstone (Allsport/Vandystadt)



# POLE POSITION

## THE EDITOR'S PAGE

The most consistent reaper of them all — and another little guy — is Alain Prost, but even his patience has run out, and his departure from a McLaren cockpit was announced at Paul Ricard (see "Keeping Track"). A temporary measure only? Veiled hints and innuendos led us to believe that this parting of the ways, after six years of almost uninterrupted success, was for 1990 only. "It may not be quite as it seems", said Ron Dennis enigmatically, as if it were the hardest thing in the world simply to explain what is happening to the world's greatest driver. Be that as it may, Prost insisted that he wished to leave McLaren with dignity, as if he were capable of anything else. Our last "Pole Position" asked what price victory number 37 at Silverstone, but he didn't make us wait even that long. Three wins in four races since he made his feelings known to the Honda engineers have given Prost the biggest lead he has ever enjoyed in the World Drivers' Championship, while four successive non-finishes have left Ayrton Senna struggling to become the first man since Prost to retain the sport's most coveted crown. If the unthinkable happens and this really is to be the last season in his unparalleled career, Prost seems determined to go out as champion of the world. In one of the most dignified remarks of that Silverstone weekend, Nigel Mansell — mighty once more in the Ferrari in front of his home crowd — admitted there was one man in the pit lane from whom he felt he could still learn, and that man was Alain Prost. A third cheer, then, for the other little guy...

STUART SYKES  
EDITOR

Stuart Sykes



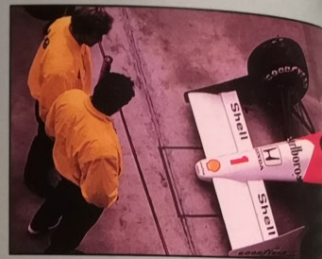
# Keeping Track

At the French Grand Prix Alain Prost confirmed he will not be driving for McLaren next year — but went no further than that. McLaren's Ron Dennis went out of his way, at the same press conference, to point out that Prost and McLaren might well come together again in the not-too-distant future. Reading between the lines, this may mean that once a certain driver is no longer at McLaren Prost, twice World Champion in the red and white cars, may feel free to return. Prost, six years at McLaren, said he was "not comfortable" with being asked to make a decision so early in the season about his 1990 plans, and the only way not to keep the team waiting was to make his departure public. "I had six fantastic years with McLaren", the Frenchman recalled, "both from the racing point of view and that of human relations. I wanted to leave with dignity; there is no problem and never will be a problem between McLaren and Alain Prost." Defending the interests of the team above all else, Dennis referred to the "difficult supply and demand situation in Grand Prix drivers" but gave no hint about a replacement at this stage. Prost, who has been considering several options including setting up his own team, is widely tipped to move, for 1990 at least, to Williams Renault. For the rest of this season, as Dennis again took pains to stress, McLaren and Honda will be working to give Alain equal equipment to his teammate as both men strive for another world title.

● The Castellet also produced probably the earliest round of musical chairs in Formula One history, with no fewer than four driver changes, temporary or otherwise. Johnny Herbert vacated the Benetton cock-

pit to pursue full fitness, especially in strengthening his legs, letting in Italy's experienced Emanuele Pirro, recently racing in Japanese Formula 3000 and test driving for McLaren. Michele Alboreto was a surprising absentee from the second Tyrrell after what was termed a "contractual dispute" between Ken Tyrrell and the Italian. From the French Grand Prix on Tyrrell are running with renewed Camel support, but while Michele is a Marlboro driver this conflict is not thought to have been the issue. Young Frenchman Jean Alesi stepped in from the ranks of Formula 3000 to impress on a "one-off" Formula One debut. Definitely out of the Larrousse Lola, after a series of non-qualifications and internal rumblings in the team, went the luckless Yannick Dalmas, to be replaced at Le Castellet by Eric Bernard, also making his Formula One debut; the 24-year-old from Marseille was runner-up in the 1988 Formula 3000 Championship and has been a race-winner in the same category this season at Jerez. Last but not least, Lotus test driver Martin Donnelly from Belfast got his Grand Prix chance — in the Arrows of Derek Warwick. A sheepish Derek crashed in a kart race in Jersey the weekend before the French Grand Prix and missed the French race in an effort to be fit for his home round of the Championship a week later.

● John Barnard is to leave Ferrari when his present contract expires at the end of October 1989. After three years as Chief Designer, distance has failed to lend enchantment to Barnard's view of the Maranello team, or rather to theirs of him: it was Barnard's repeated refusal to move his own centre of operations from Guildford to Italy that seemed to be



John Barnard reflects on his past, his present and perhaps his future? (Alagon/Pascal Proulx)

the final stumbling-block. In truth, changes at the top of the Ferrari team since the death of its founder Enzo Ferrari have merely exacerbated a problem that had simmered since Barnard's appointment in November 1986. Barnard, it is said, will continue development work on Ferrari's Formula One chassis until he leaves, almost certainly to regenerate his brilliant career in a team more akin to McLaren, where he made the winning of World Championships a very regular habit. Ferrari, meanwhile, have appointed a new design head in Enrique Scalabroni, with Williams since 1985.

● Millionaire Jean-Pierre van Rossum, who is the major shareholder in Moneytron, is reportedly offering \$8 million in order to attract a top-line driver to the Onyx team in 1990.

● The schedule for the onboard car TV cameras for the rest of the season is as follows: Benetton — Italy, Lotus — Hungary, Ferrari — Germany and Portugal, Brabham — Belgium, McLaren — Spain and Japan, Arrows — Australia.

Nigel Mansell will drive for Ferrari in 1990. With the possibility of losing Berger to McLaren and with John Barnard leaving, Ferrari was anxious to retain at least one star. It is rumoured that they offered Mansell about \$8 million.



Celebrating his new Ferrari contract and his new Maranello franchise Nigel Mansell spins an F40 for the crowds (John Townsend)

● Teddy Mayer's brief reign as managing director at Brabham ended just before the French Grand Prix after what a team spokesman described as "a clash of opinions" on how the team should be run. One of the founder members of McLaren in the early 1960s, Mayer left that team in 1982, returning to the United States to work in CART Indycar racing, with his own team, with Newman-Haas and Penske. He was also involved in the short-lived Beatrice-Haas Lola Formula One project. Brabham have re-signed Martin Brundle and Stefano Modena for 1990, and found a new sponsor in Japan's Nippon Shinpan finance company.

● Boutsen's Canadian win ended the streak of 53 Grand Prix victories which have all been won by one of five drivers: Nigel Mansell, Gerhard Berger, Ayrton Senna, Alain Prost and Nelson Piquet. The last time some-one else won a Grand Prix? Keke Rosberg in Australia at the end of 1985. The last win for a Renault engine? Detroit 1986 with Senna and his Lotus Renault. The last time Team Williams won a Grand Prix? Mexico 1987 with Mansell.

● One of the benefits of the Pirelli tyre over the Goodyear tyre is that you can use the Pirelli qualifying tyre more than once. The Brabham team, for example, usually sends its drivers out with qualifying tyres early in the pre-qualifying session. After setting a quick lap, the drivers change to race tyres while their

qualifying tyres are sent back to the Pirelli compound where the top layer of rubber is scraped off. The qualifying tyres can then be reused. This, according to Pirelli's rivals, makes virtually no difference in performance terms but may effect a small financial saving — which is not without merit when it costs a team on average some \$10,500 in tyres just to get into a race...

● In Mexico, for the first time this season, one of the Onyx cars made it through the pre-qualifying hour. The joke in pitlane was that Stefan Johansson, who for the first time this season had to drive for an entire weekend rather than just the one hour pre-qualifying session Friday morning, was demanding overtime pay. It must have got even more expensive in France: both Johansson and teammate Bertrand Gachot pre-qualified together for the first time, Gachot heading the list.



Overtime pay! — Stefan negotiates extra kroner with the Onyx management (John Townsend)

Bernie Ecclestone has scrapped his plan which called for each Grand Prix winner to stop for tyres in each race for the rest of the season. The plan, which would have made previous winners pit for a tyre change (up to a maximum of three times), was aimed at improving the television ratings which have been declining. The main target was, of course, the McLaren team. After a meeting with Formula One team managers in Phoenix, Ecclestone said they were against the tyre stop plan as well as fuel stops.



Mr Ecclestone & Mr Mansell enjoying an enforced pit stop (John Townsend)

Nigel Mansell has given some insights into the Ferrari's semi-automatic gearbox. But only some... "A lot of the information is confidential," he said. "The only thing I can say is that in Monte Carlo I had great difficulty because it is a seven-speed box and it is like a motorbike gearbox. You have to go up and down through every gear — you can't miss one. We have had many problems with the reliability. The reason I stopped in Imola and Monte Carlo is that the computer kept resetting the gearbox to neutral. It's very difficult to drive when you have seven neutrals... I must confess, like the active suspension, that I am not excited about going down the straight and having something happen over which you have no control... like shifting from seventh to second gear!"

● "I didn't realise that Canada was a third world country," one team manager muttered darkly. Throughout the weekend the Formula One regulars complained about the poor organisation of this year's Canadian Grand Prix. For example, one hour before pre-qualifying was due to start, the organisers sent someone out with a giant truck to wash the track! The teams eventually stopped the driver, but not before he had soaked down pitlane and half the track.

● When Emerson Fittipaldi won the Indianapolis 500 recently, not too many people will have thought immediately of a racing school in Leicestershire, England. But the Brazilian's victory was the latest addition to an impressive list of battle honours chalked up by the "old boys" of the Jim Russell Racing School, now based at Donington Park, England, with affiliates at Laguna Seca, Riverside and Canada's Mont Tremblant. The school boasts two double World Champions: Fittipaldi himself, twice king of Formula One, and Derek Bell, twice Worlds Sportscar Champion. Danny Sullivan was the first ex-Russell pupil to win the Indy 500, but the Le Mans 24 Hour Race is the one most often carried off by JR graduates. No fewer than eight times, in fact, five of them by Bell, two by Jean-Pierre Jausaud and, then victory by Andy Wallace in 1988. Other former JR men competing in Indycars are Roberto Guerrero, James Weaver and Jacques Villeneuve, and there were ten Russell racers in the 1989 Le Mans entry list.



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It's not often that a driver can express his feelings in a manner which makes journalists glad he has chosen to race cars rather than write about them. But Phil Hill was one such. Rarely has a more sensitive and honest man found himself succeeding in a business where such personal qualities are frequently manipulated to the advantage of others. And, to add to the contradiction, Hill managed to win the championship in 1961 while driving for Ferrari, a team which has been known to make strong men cry without fully understanding why.

Phil Hill understood all right. And, presumably, if he chose to spare a moment or two today while restoring vintage Packards in California, he could make a pretty accurate guess at the reason behind the dissolution of John Barnard's unique working relationship with Maranello.

It's true that times have changed immeasurably at Ferrari since Phil drove the stunning 'sharknose' Tipo 156. But the Italian way of doing things has not. Hill called it a 'loony unpredictability'; John Barnard may choose to use slightly stronger language once his contract expires next October.

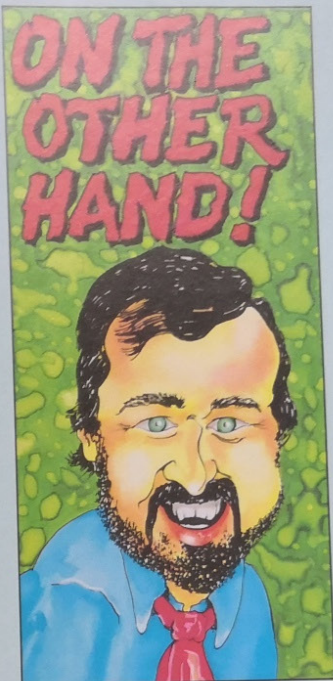
Of course, it's easy to sit back and smugly say 'told you so'. Michele Alboreto compared running Ferrari's design and development from an office in Surrey with a surgeon conducting an operation by telephone. Mind you, Michele was probably grinding that particular axe on the bond which quickly grew up between Barnard and Gerhard Berger. But you could see his point.

And yet, when all is said and done, the concept worked surprisingly well. What didn't work was the acceptance by Ferrari that anyone other than a 'Modenese' was designing the latest piece of Italian heritage.

When John Barnard was in charge at McLaren, he was known as the Prince of Darkness. If you want to know what that means, don't ask him. You would have seen a trace of it a few weeks ago had you been at the track at the back of the paddock after the Canadian Grand Prix had finished. Barnard was on his own, deep in thought, a bomb in a yellow jacket waiting for someone to light the touch paper.

I supplied the match by asking if Berger had retired with gearbox trouble.

Looking back on it now, John con-



### THE MAURICE HAMILTON COLUMN

rolled himself very well. But, for a brief moment, I felt I was about to pay for my crass insensitivity by testing the temperature of the nearby rowing lake while still fully clothed. Barnard had just about had enough of the loony unpredictability of Maranello for one weekend without dealing with an Irish version which assumed that, if a Ferrari had stopped, it must be because of a failure with John's pride and joy, the gearbox.

In fact, the trouble had been caused by the alternator — and no one was less surprised than John Barnard. He had seen it coming, issued instructions to have the problem rectified — and nothing was done. Or, at least, not in the manner prescribed.

And there you have the crux of the problem. The method of fixing was not apparent until Barnard saw the car at the race track. But, even if he had been present at Maranello

throughout the preparation, that would not have guaranteed success either. You see, he had thought the thing through. Not the Italians.

Phil Hill used to face the same problem and he describes it perfectly in Stan Grayson's book 'Ferrari, The Men, The Machines'. Hill explains that a driver was not expected to intrude on anyone else's territory. If he felt there was a fault on the car, he couldn't actually point to it and expect an immediate solution. His comments would be ignored and, eventually, with a note of triumph, the engineers would discover the problem which Hill had identified half-an-hour before. He soon realised that the trick was not to tell them what the trouble was but to engage in an elaborate charade which allowed the engineers and mechanics to make the discovery.

Hill says that, in the event of a failure, Enzo Ferrari always demanded an explanation from his engineers. And Phil quickly discovered that the usual explanation was to blame the driver.

These days, they blame the designer. Indeed, I wondered if it was possible that the alternator modifications had not been carried out satisfactorily so that the Ferrari would fail yet again — and more pressure could be heaped on Barnard. After all, they always need a scapegoat at Ferrari and Barnard and his gearbox have fitted the bill admirably. But could they really be that cynical? Probably not, since John had already made up his mind to go. But you begin to wonder after reading Hill's inside account of a team which thrives on emotion.

I had interrupted Barnard as he considered the early departure of both Ferraris from the race; Nigel Mansell may have been disqualified but that came moments before his car was due to stop with, yes, you've guessed, alternator trouble. In typical fashion, the disqualification provided a perfect smokescreen for Ferrari and they made heavy weather of criticising the officials. In fact, they had due cause.

I had a ring-seat view of the shambles at the start, the press room being located near the end of the pit lane and directly behind the starting gantry. If you recall, the track was wet as the cars formed on the grid but when someone stalled, the count-down had to start all over again.

Mansell and Alessandro Nannini reckoned the line was drying

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Who really knows what goes on behind the scarlet door?  
(Alamy/Pascal Rombaut)

quickly enough to warrant a late switch to slicks as they completed the final parade lap. They duly rushed into the pits, took on dry tyres and then aimed for the far end of the pit lane, where they expected to find an official barring the way and refusing to let them out until the race had started and the field had rushed past the pit lane exit.

In fact, when they got there, there was no one in sight. An amber light began to flash — a sign, they had been told earlier, which indicated they should rejoin with caution — and both drivers assumed the race had already started. So they shot onto the track. Meanwhile, the grid was still forming. The officials took a dim view of all this and promptly disqualified both drivers after a couple of laps.

In fact, the officials failed abysmally. And the consequences do not bear thinking about had Mansell and Nannini accelerated onto the track just a second or so after the race started.

The fact that Mansell would have retired anyway has no bearing on the effect of such incompetence. Nannini was Benetton's only representative in the race and the actions of the officials denied the team their potential earnings, a farcical situation given the alacrity with which FISA hand out heavy fines for offences which amount to nothing more than being caught smoking behind the bicycle sheds after school.

I felt sorry for both drivers since, at the time, they had made the perfect tactical decision. 'A racer's decision', Mansell called it. And he's right. The disadvantage of starting from the pit

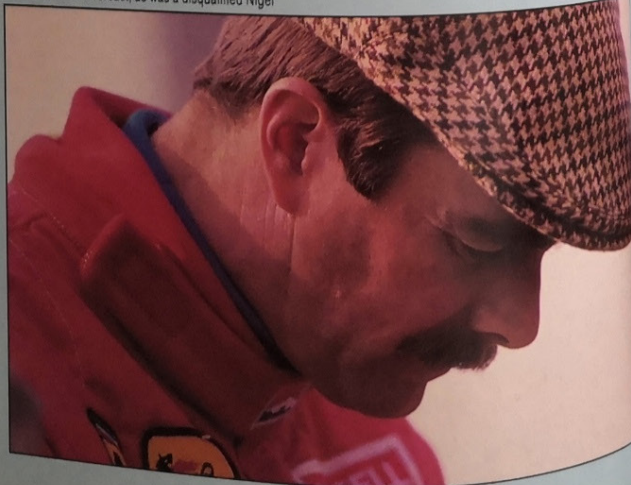
lane would have been more than balanced by the time saved as the rest stopped to get rid of their wet tyres. The fact that the rain would return later does not alter the tactical decision which James Hunt would have revelled in had he been at the wheel.

"I thought it was absolutely the right thing to do", says Hunt. "The only way you can tackle that sort of situation is to make your decision on the prevailing conditions at the time. Trying to second-guess conditions, by and large, ends in disaster; that's tactical error. The guys who stayed on wets in Monte Carlo were lucky; basically they had left too late but then the conditions changed in their favour. But, at the time, Mansell and Nannini read it right. What the officials then did was another story, of course."



Contrasting moods: Barnard (second left) and Mansell face the Ferrari future...

But Canada was overcast, as was a disqualified Nigel



And what they did at the end of the French Grand Prix was yet another close call with disaster. It was decided, in someone's infinite wisdom, to direct the cars into the scrutineering bay the minute they had crossed the line. Men with yellow flags were dispatched into the middle of the track and one of them almost needed men in white coats to come and take him away after Martin Donnelly came close to mowing him down. Bertrand Gachot, meanwhile, narrowly missed colliding with Piquet as the Lotus slowed suddenly.

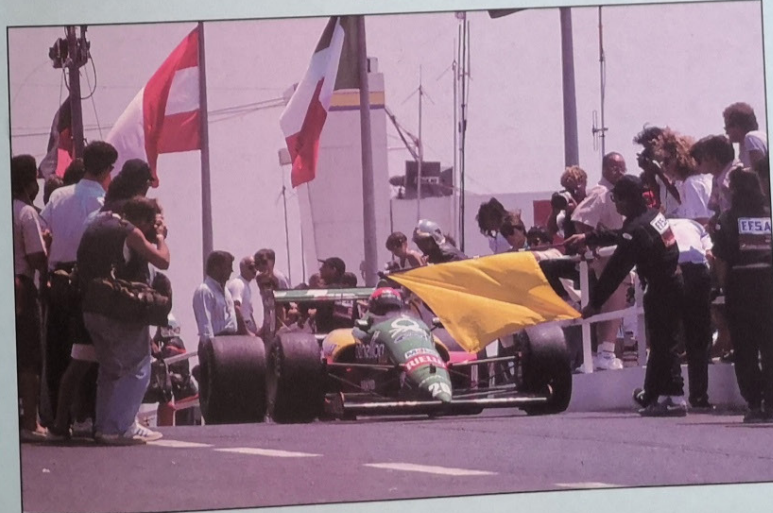
I'm told that the drivers were warned this would happen. But it is easy to understand that the novices, having reached the end of their first Grand Prix after 70-odd punishing laps, might have something else on their minds other than the latest edict from FISA. Anyway, whatever happened to the lap of honour? You know, something for the benefit of the spectators who had parted with anything from £35 to £100 to see the action.

You would think, too, that the French would be sensitive to potential accidents at the conclusion of the race. In 1962, there was a nasty incident at the end of the French Grand Prix at Rouen when the entrance to the paddock was blocked and a crippled car came to a standstill on the track. Two other cars, crossing the line at full speed, crashed in avoidance.

Some things never change in France. Or in Italy, come to that. ■



Above: Berger is — at least for the time being — the man in the other Ferrari hot seat  
(Sporting Pictures)



Left: If the Canadian start was fraught, so was the French finish...  
(LAT)



1989 FORMULA ONE GRAND PRIX CHAMPIONSHIP — RACE NO.6

# RACE REPORT CANADA

DAVID TREMAYNE

If it is true that a driver makes his own luck, then Thierry Boutsen was working overtime in Montreal. When the Belgian came into the pits to change from wets to slicks at the very point at which it began to rain again, his cause looked hopeless.

Then there was the spin on lap 33. This was no ordinary spin, you understand. This one came in the kink just after the old pits. The sweeping left/right jink taken at 180mph in the dry and over 150 in the wet.

"One minute I was going forwards, the next I was going backwards just as fast!" he laughed with that breathless kind of hysteria we reserve for moments of great stress that are still fresh enough to be frightening. "Fortunately the car followed the track and I was able to come off the brakes and flick the wheel and come straight again. I only lost three or four seconds altogether in that lap."

His final stroke of luck owed more to Honda, however. By the time he drove past Ayrton Senna's abandoned McLaren, he had survived

as many chops as Rene Arnoux could administer in the Ligier he eventually succeeded in taking to fifth place, and a moment when his own teammate deliberately put him on the grass on lap 61 when he had closed dramatically. When the Williams pit put out P1 to him, he admits he didn't believe it, but the second time he passed Senna's McLaren he believed it so much he was petrified of making another mistake. He didn't.

Canada always gave the impression that it might be one of those surprise races. The Circuit Gilles Villeneuve, one of the most challenging in the championship, favours those whose engines have plenty of power and torque, and rewards the unwary with an instant meeting with concrete walls. It isn't quite Phoenix in the latter respect, thank God, but there is precious little run-off anywhere, and the corner before the pits, where the committed and the pit-bound alike share the same line, continues to arouse bitter criticism.

Gerhard Berger removed a possible factor in the outcome when he

stalled on the line and caused the distance to be shortened from 70 to 69 laps, thus removing part of the worry over fuel consumption that usually hangs over the event, while the weather also played a major role. There'd been a hailstorm less than an hour before the start, but as the grid assembled the skies looked promising. In hindsight, the decision of Mansell and Nannini to switch to slicks at the end of the warm-up lap looked foolish; at the time it was unquestionably a worthwhile gamble.

It was, however, one that also called into question the ability of the Canadian organisers. All through qualifying there had been evidence that they were rather short on logic. They stopped pre-qualifying when Aguri Suzuki hit the wall, yet when Foitek went off in the kink they kept the track open despite debris everywhere. Some ended up in Stefan Johansson's cockpit, the rest caused problems for Gachot and the entire incident so convinced Brundle the session would be halted that he made the pit call that would ultimately cost

him his place in the qualifying sessions.

Now, as Mansell and Nannini sought to take their places in the race, which they believed had already started as they headed down the pit road, they found no guidance whether to leave or wait. Nigel could be seen looking every which way in the absence of any kind of exit light before doing what any self-respecting driver would do and taking off. Nannini got flashing yellows and in accordance with the drivers' briefing, carried on with caution. Both were black flagged and disqualified.

FISA inflamed things with a fatuous press release drawing teams' attention to the need to comply with the regulations. What it didn't say was that organisers should do so too, or that the man in charge of the pit exit had gone elsewhere after the aborted first start...

The Canadian Grand Prix was, however, a splendid tonic for motor racing. After that awful farce at Phoenix it was an antidote to see Formula One cars screaming through the kink flat in sixth or seventh at 180mph, and to be able to tell spectating Americans that this really is what Formula One can be about, not farting round artificial tracks in second and third gear. The race itself also provided some memorable incidents.

When was the last time a McLaren pulled out of a race with structural failure? Prost had a wing mount problem in Rio last year, on the MP4/4's debut, but that was in qualifying. Yet there he was in Montreal, a third lap retirement with a suspension pick-up pulled clean out of the tub...

And when did a Honda fail so publicly? You have to go back to Monza last year, and Suzuka the year before that.

I find it a rather sad reflection of Senna's public image that his retirement was cheered. Had he stayed the way he was in 1984, he would be hallowed in the way Villeneuve was. Instead, his detached intensity has worked against him in an unpleasant way. When Derek Warwick led for four laps one couldn't help but feel a warm glow, and even allow oneself the fleeting luxury of anticipating writing a race report about his first victory. Had it come it would have been as richly deserved as



Huge relief for Team Lotus when Piquet's fine drive brought home constructor points for the first time in '89

John Townsend

a win for Senna, for both had driven superbly in the appalling conditions. Ayrton, however, has tasted the champagne before; for Derek it was somehow just another bitter chapter in a frustrated career when his engine quit, and you felt for him.

For Larini, too. Racing in one of the lowest budget teams is no sinecure, and then there was the disappointment of losing the Ferrari drive in Mexico, yet the young Italian never loses heart, remains constantly cheerful. Last year he put in some fine performances, notably at Monaco and Jerez, but they went largely unnoticed. At Imola this year he was mighty. Now, with a new chassis in Canada, he was as high as third when his electrical

system malfunctioned in the rain. Roberto Moreno, too, deserved better, having squeezed the new Coloni in on Saturday, when few others improved their times. He survived loss of the left front wheel and was finally classified ninth even though the gearbox failed.

Montreal might have dished out just reward to Boutsen, and favoured old-timers Piquet and Arnoux with their first points of the year, but it sure was heartless towards the aforementioned and others, among them Palmer, who crashed, Alboreto whose electrics failed on the first lap, and Martini and Modena who took each other out of an eighth place battle when the latter aquaplaned on the first lap.



It was also an indication of how tough the Formula One schedule has been since Monaco. The Ferraris have made little progress on the gearbox front. The alternators still aren't man enough to cope with the demands of the electro-hydraulic transmission, and had been repositioned in the wrong place after Phoenix, as John Barnard discovered when he first saw the cars after his trip home to GTO in Guildford. Maybe Michele Alboreto was right when he said running the technical side from Britain was like a brain surgeon attempting a complicated operation over the telephone.

March, too, is still in the same mire it encountered when the CG891s made their debut in Monaco, while Benetton has never been the same since Rio and actually failed to qualify a car when Herbert simply couldn't set his up to suit his style round the demanding course.

Dallara, however, continues to progress and again had points to count at the end of a wet day, as did the highly relieved Lotus and Ligier equips which should now avoid prequalifying. Larrousse, however, which saw Alliot stuff one car on the warm-up lap and run fourth before parking the spare backwards in the wall, could only think of what might have been, as could Onyx, after Stefan Johansson attempted to spread its pit wares round the track after premature evacuation from his first tyre stop.

It is a sad indication of the state of Formula One that so many take pleasure from the retirement



Above: Although a surprise, Boutsen's first ever Grand Prix win, was just reward for a superb drive



So near again, Derek Warwick led the Canadian Grand Prix and might have won, had not his engine died

of the best car and driver combination, but undoubtedly the Williams one-two breathed much needed fresh air into the sport's lungs.

What was most gratifying, though, was seeing a racer graduate to winning status, and to see all three men on the rostrum wreathed in smiles. It made a change. □

After one of his greatest drives, Ayrton Senna for once had to reflect on the failure of his car

(Allison/Pascal Rondeau)

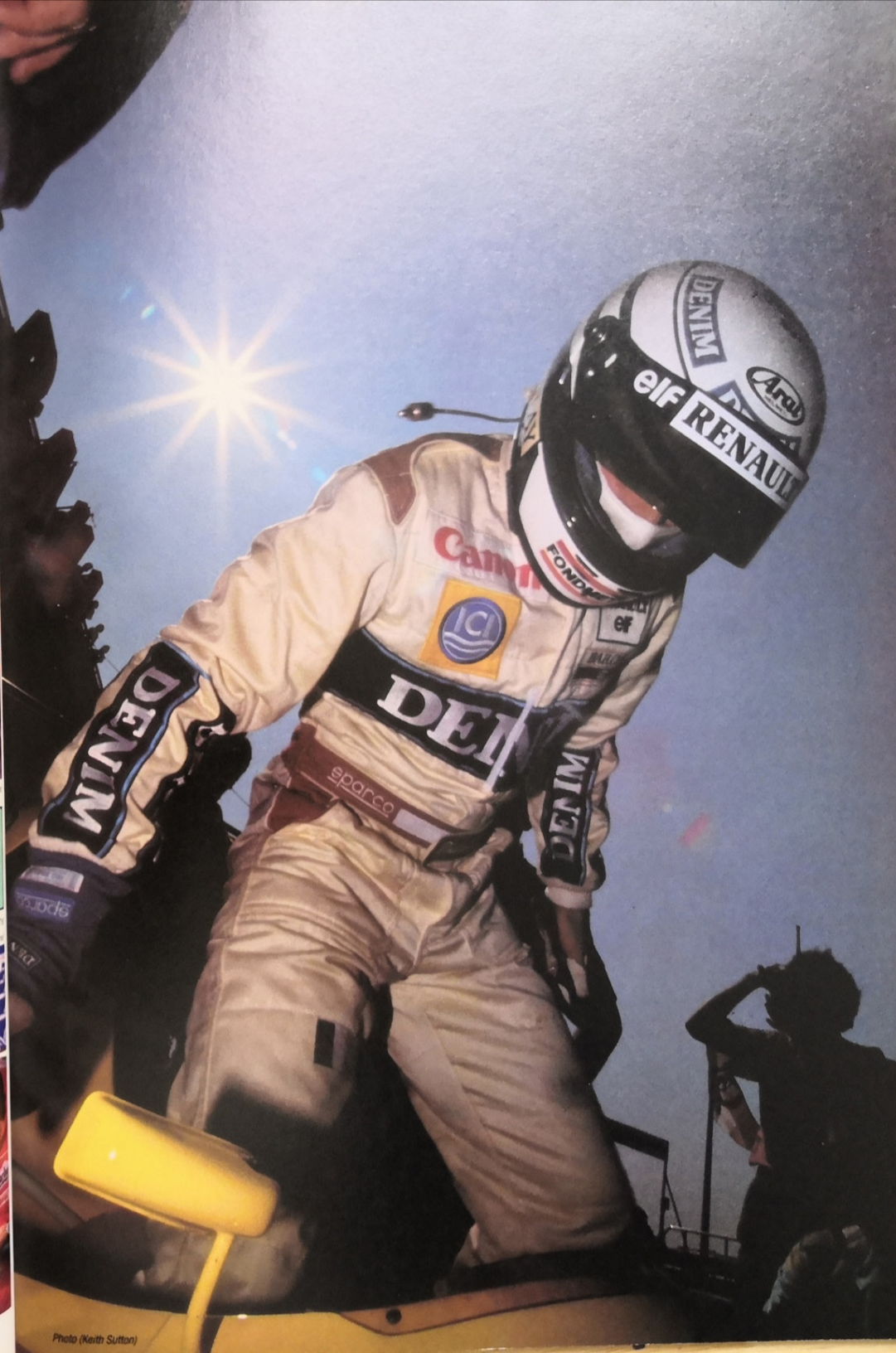


Photo (Keith Sutton)



1989 FORMULA ONE GRAND PRIX  
ROUND SIX

## CANADA

Circuit Gilles Villeneuve

18th June 1989

Circuit Length: 2.728 miles/4.390 km

Laps: 70 (reduced to 69)



(LAT)

### Drivers' World Championship

Pos	Driver	Total
1	Alain Prost	29
2	Ayrton Senna	27
3	Riccardo Patrese	18
4	Thierry Boutsen	10
5	Nigel Mansell	9
6	Alessandro Nannini	8
7	Michele Alboreto	6
8	Johnny Herbert	5
9	Derek Warwick	5
10	Alex Caffi	4
	Eddie Cheever	4
	Andrea De Cesaris	4
	Mauricio Gugelmin	4
	Stefano Modena	4
15	Christian Danner	3
	Nelson Piquet	3
17	Rene Arnoux	2
	Jonathan Palmer	2
	Gabriele Tarquini	2
20	Martin Brundle	1

### Constructors' World Championship

Pos	Team	Total
1	McLaren	56
2	Williams	28
3	Benetton	13
4	Arrows	9
	Ferrari	9
6	Dallara	8
	Tyrrell	8
8	Brabham	5
9	Leyton House	4
10	Lotus	3
	Rial	3
12	AGS	3
	Ligier	2

## Official Starting Grid

Alain Prost	1.20.973	2	1	Ayrton Senna	1.21.040
McLaren-Honda				McLaren-Honda	
Riccardo Patrese	1.21.783	6	28	Gerhard Berger	1.21.940
Williams-Renault				Ferrari	
Nigel Mansell	1.22.165	27	5	Thierry Boutsen	1.22.340
Ferrari				Williams-Renault	
Stefano Modena	1.22.612	8	21	Alex Caffi	1.22.560
Brabham-Judd				Dallara-DFR	
Andrea De Cesaris	1.23.050	22	30	Philippe Alliot	1.23.080
Dallara-DFR				Lola-Lamborghini	
Pierluigi Martini	1.23.252	23	9	Derek Warwick	1.23.340
Minardi-DFR				Arrows-DFR	
Alessandro Nannini	1.23.542	19	3	Jonathan Palmer	1.23.660
Benetton-Ford				Tyrrell-DFR	
Nicola Larini	1.23.799	17	10	Eddie Cheever	1.23.820
Osella-DFR				Arrows-DFR	
Mauricio Gugelmin	1.23.863	15	36	Stefan Johansson	1.23.970
Leyton House-Judd				Onyx-DFR	
Nelson Piquet	1.24.029	11	4	Michele Alboreto	1.24.240
Lotus-Judd				Tyrrell-DFR	
Ivan Capelli	1.24.406	16	25	Rene Arnoux	1.24.550
Leyton House-Judd				Ligier-DFR	
Christian Danner	1.24.727	38	24	Luis Perez Sala	1.24.780
Rial-DFR				Minardi-DFR	
Gabriele Tarquini	1.24.793	40	31	Roberto Moreno	1.25.030
AGS-DFR				Coloni-DFR	

## Race Classification

Pos	Driver	No.	Nat.	Car	Laps	Time/Retirement
1	T. Boutsen	5	Bel	Williams-Renault	69	2.01.24.073
2	R. Patrese	6	Ita	Williams-Renault	69	2.01.54.080
3	A. De Cesaris	22	Ita	Dallara-DFR	69	2.03.00.722
4	N. Piquet	11	Bra	Lotus-Judd	69	2.03.05.557
5	R. Arnoux	25	Fra	Ligier-DFR	68	
6	A. Caffi	21	Ita	Dallara-DFR	67	
7	A. Senna	1	Bra	McLaren-Honda	66	Engine
8	C. Danner	38	Ger	Rial-DFR	66	
R	R. Moreno	31	Bra	Coloni-DFR	57	Transmission
R	D. Warwick	9	GB	Arrows-DFR	40	Engine
R	J. Palmer	3	GB	Tyrrell-DFR	35	Accident
R	N. Larini	17	Ita	Osella-DFR	33	Electrics
R	I. Capelli	16	Ita	Leyton House-Judd	28	Spun off
R	P. Alliot	30	Fra	Lola-Lamborghini	26	Spun off
DQ	S. Johansson	36	Swe	Onyx-DFR	13	Black flagged
R	L. Sala	24	Spa	Minardi-DFR	11	Spun off
R	M. Gugelmin	15	Bra	Leyton House-Judd	11	Electrics
R	G. Berger	28	Aut	Ferrari	6	Alternator
R	G. Tarquini	40	Ita	AGS-DFR	6	Accident with Arnoux
R	E. Cheever	10	USA	Arrows-DFR	3	Electrics
R	A. Prost	2	Fra	McLaren-Honda	2	Suspension
R	S. Modena	8	Ita	Brabham-Judd	0	Accident with Martini
R	P. Martini	23	Ita	Minardi-DFR	0	Accident with Modena
R	M. Alboreto	4	Ita	Tyrrell-DFR	0	Electrics
DQ	N. Mansell	27	GB	Ferrari	0*	Start infringement
DQ	A. Nannini	19	Ita	Benetton-Ford	0*	Start infringement

\*Subject to appeal.

Fastest Lap: Jonathan Palmer 1.31.925, 106.830 mph/171.923 km/h

## Non Qualifiers

No.	Name
12	S. Nakajima
29	Y. Dalmás
20	J. Herbert
26	O. Grouillard

## Non-Pre Qualifiers

No.	Name	Car
7	M. Brundle	Brabham-Judd
37	B. Cachot	Onyx-DFR
33	C. Foitek	EuroBrun-Judd
18	P. Ghinzani	Osella-DFR
34	B. Schneider	Zakspeed-Yamaha
41	J. Winkelhock	AGS-DFR
39	V. Weidner	Rial-DFR
35	A. Suzuki	Zakspeed-Yamaha
32	P. H. Raphanel	Coloni-DFR

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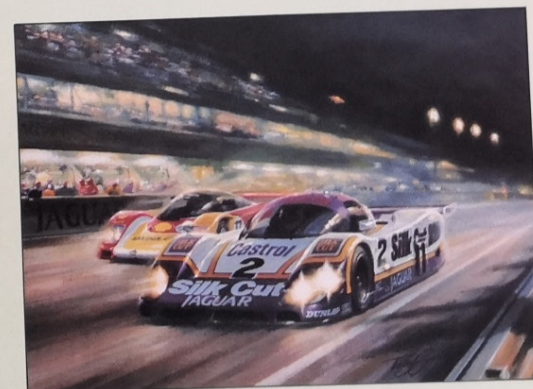
## 1989 BRAZILIAN GP

During practice and the warm-up few would have put money on a Ferrari even finishing, the relatively new semi-automatic gearbox giving both Berger and Mansell severe problems.

However, come the race the story could not have been more different, Berger flying off the line to challenge Senna at the first corner, Senna unwisely trying to intimidate Berger into lifting off and effectively putting them both out of the race.

Patrese now led, soon to be challenged by Mansell who had to resort to some spectacular outside overtaking to pass. From then on it was fingers crossed through the pit stops and to the finish. A brilliant first time win for the Ferrari 640 and first race by Nigel in a Ferrari. A milestone race punctuating and hopefully ending the previous season's mind-numbing monotony.

OVERALL PRINT SIZE 28" x 22"



## 1988 LE MANS

The build-up to the Le Mans 24Hrs was one of great speculation and expectation. However, the great three-way confrontation was not to be: the Mercedes Team was withdrawn on the Thursday due to their tyre problems. But even with this sad event the race was still one of the most gripping duels in the Le Mans history.

Factory Porsches held the first three positions on the grid, the No1 Jaguar in fourth spot, the No2 car was sixth. From the outset it was Lammers No2 car which proved the quickest, moving into second spot soon after the start and into the lead after 25 minutes.

Into the evening the No2 Jaguar led but was being caught by the favourite Porsche followed by the No1 Jaguar. This lead although rarely relinquished was under constant threat throughout the long night and early morning. Mid-morning rain gave added vigour to the Porsche threat. The Le Mans race was only a certainty at three o'clock. The Jaguar of Lammers, Dumfries and Wallace, less than a lap in front of the Porsche, led a trio of Jaguars over the line to a rapturous welcome.

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The end of an era was signalled in Paul Ricard. On Friday morning, Alain Prost finally confirmed what most insiders had already come to expect: he will be quitting McLaren International at the end of the season.

The crazy thing is that Alain doesn't want to go, and McLaren doesn't really want to lose him, either.

Ron Dennis made an infinitely better job of things at Alain's retirement press conference than he did when Niki Lauda announced his departure in Austria in 1985, and the friendship between the little Frenchman and the McLaren boss shone through like a beacon. So why quit? The answer is simple. Alain has had enough of the atmosphere he feels has been created by Ayrton Senna. The Brazilian clearly isn't going so... it's time to seek pastures new.

Since he rejoined the team for 1984, Prost had scored an amazing 27 victories to add to his nine from the Renault years. And in Ricard he was, as he put it "feeling well". That doesn't mean he'd been ill, just that he felt all the factors were right. In a fair qualifying fight with Ayrton, he put the MP4/5 on pole and walked

the race. Victory 37 was very sweet indeed.

The other remarkable aspect of Ricard was the performance of a bunch of rookies, all of whom got their chances after a week of unprecedented driver shuffling. So well, in fact, that several of Formula One's older lags should start looking over their shoulders rather more than their pride usually allows.

Before the event, Ken Tyrrell had barely heard of Sicilian-born Jean Alesi, and nor had the majority of Formula One's supposed cognoscenti. Few had bothered to watch him in action at the Monaco Formula Three race in 1986 or again when he finished second in 1987.

They got a rude shock when he was a calm fifth fastest at one stage during Friday morning's free practice, and suddenly Jonathan Palmer was adopting that unsettled look he does whenever a teammate looks threatening.

'Asleazi' as his Eddie Jordan Racing Formula 3000 partner Martin Donnelly calls him, went on to qualify 16th after problems with traffic and to take an excellent fourth overall on his debut.

That puts him in company with Prost, Brundle and Herbert, and his measured pace suggests he is a potential star in the making.

Bertrand Gachot, too, should have — *would* have — scored points in his first Formula One race, but was thwarted by a flat battery. The Belgian was responsible for finding the Moneytron backing from compatriot Jean-Pierre van Rossem, and has been champing at the bit all season as he tried desperately to unlock the door in prequalifying. Well, he found the key that Friday morning in France, gave it a big turn by setting fastest time in the weed-ing-out session, and then kicked the door wide open by lining up 11th on the grid and highest new-boy.

You'll gather that the Onyx OR-1s were working pretty well in Ricard, endorsing their test times, and with Stefano Johansson qualifying 13th (like Palmer, also keeping a wary eye on his team partner), things began looking up for Mike Earle's team. Gachot is an aggressive driver and after losing a place to Alesi early on, he got his head down and charged. He looked a little more

frenetic than the Frenchman as he sat millimetres behind rivals going through the first corner, as usual maintained he was taking it easy, and would have been a thoroughly deserving recipient of two points for fifth but for his problem.

In truth, he and Stefan were being gentle in the opening laps, after a series of wheel bearing problems in qualifying and the morning warm-up, but both cars proved reliable in the race. Johansson took fifth on his teammate's demise, and Earle began fervently to hope the result would help his team out of the mire of pre-qualifying.

That subject was also preoccupying Gerard Larrousse. There might have been a slight air of disappointment in parts of the camp when details of the Didier Calmels case, being heard at the time of the race, were not made public — if there are two things the Formula One paddock loves, they are gossip and scandal — but there was also fresh hope. It came in the form of Eric Bernard, who replaced the sacked Yannick Dalmas for this race.

Philippe Alliot's neck had also been threatened with Madame La Guillotine, but he staged his own French Revolution by qualifying an excellent seventh and looked a candidate for fifth until his

Chrysler Lamborghini blew a piston. Bernard, too, suffered that fate, but not before he had impressed every bit as much as Alesi. His smoothness and precision in the Lola drew much praise and he was pressing Jonathan Palmer very hard for seventh in the closing stages when the V12 finally spurned his sympathetic nursing and let go in a cloud of smoke that would have done credit to any 1950s B movie scene.

Donnelly himself was the fourth debutant, standing in for the injured Derek Warwick at Arrows after Jack Oliver had politely refused Lotus' original offer of Piquet and Nakajima, both of whom lined up on row 10. The Ulsterman — Mr Juicy to Alesi on account of his 1987 Macau Grand Prix win for the drink manufacturer — was all at sea on Friday, hating the oversteer that running similar settings to teammate Eddie Cheever created, but on Saturday he got the A11 going to his satisfaction to qualify a strong 14th. Eddie was 22nd initially, before a wing infringement dropped him to 25th.

Martin was involved in a first corner incident and thus obliged to take over Cheever's spare for the race. You guessed it, it oversteered like a bitch, had no drinks bottle and generally gave him a

very hard time, but he came through a baptism of fire with merit, and looked much fresher afterwards than he'd expected to. Gachot and Donnelly's former Formula Three/Formula 3000 playmate Johnny Herbert should have been racing against them, but Benetton and Ford had decided he is no longer up to the job until his leg muscles are stronger, so got Emanuele Pirro to drive the aged B188 to its new customary 24th grid slot and ninth in the race. The Roman is a talented shoe, no doubt about that, but going from the McLaren MP4/5 to the B188 must have been like swapping a Rolls for a Skoda. He was diplomatic, complained only of bog-slow speed on the straights, and was thankful for the chance after his once promising Formula 3000 career had apparently waned. Testing the McLaren gave him plenty of Formula One experience, but for a long time it seemed he was destined never to put it to use in a race. If Herbert had to be rested, Pirro made a good substitute.

The pattern is thus set. Formula 3000 is the training ground for tomorrow's Formula One pilots, and all of the young lions proved that enthusiasm and raw commitment can outweigh experience and familiarity in certain circum-

First start, full stop: Gugelmin's Leyton House attacks Mansell's Ferrari



(Allsport/Pascal Rodière)



stances. There are far too many old boys in Formula One who should no longer be there, regardless of their past achievements, and I hope the new wave is about to sweep them on to the beach in 1990.

The French Grand Prix started with a bang when Gugelmin aviated his Leyton House March over Berger and Boutsen — did a cynic say it was one of the few spectacular overtaking manoeuvres he's ever pulled off? — and landed on Mansell. The race was stopped, the wreckage cleared up, and everyone restarted, even Patrese who had had electrical failure even before the grid formed. Incredibly, though, nobody thought to give Mauricio a medical examination.

Berger had abandoned his race Formula One/89 before the first start after it developed an oil leak. That, and the restart, gave Mansell an even chance, since his race car had lost its rear wing. More than that, however, the oil leak problem had been diagnosed, so Berger's race car was repaired just in time for Mansell to start in it from the pit lane. He then staged a magnificent recovery to second place, 44s shy of Prost.

"The way my race car was, I reckon I could have won that," he said afterwards. "It was handling much better than Gerhard's".

Gerhard's spare that he raced (still with me?) also retired with an oil leak, after the Austrian had pushed Prost initially and then had a minor off, but Mansell's repaired car didn't miss a beat for the remainder of the day. Maybe, just maybe, the Ferraris had found their elusive reliability...

There were other encouraging signs, too, such as the dramatic improvements of Benetton and March. Both had spells in second place with their latest cars, Sandro Nannini getting within 7.6 seconds of Prost once both had made their tyre stops. However, when the left rear suspension broke at the end of the pit straight at the start of lap 41, the Italian tricycled into the escape road at unabated speed, narrowly missing clipping the rear of Nakajima's Lotus. Fortunately the B189 stopped without further damage, and while fragile still, had proved fast enough to suggest it would pose a strong threat elsewhere. It was a timely fillip.

The Marches, too, looked good at last, benefiting from a lot of recent testing. Capelli qualified only 12th, but hacked up to run second for three laps after Nannini's demise, only to suffer a mighty engine failure. Gugelmin, who lost his clutch early, nevertheless ran hard all the way home to set fastest lap.

This time, the Williams Renaults weren't quite there. Patrese ran to a solid third in the spare car, which was about all he could have hoped for in the circumstances, while Boutsen looked menacing with the Phase Two V10 in the early stages before he began losing gears and retired.

The what-might-have-been nature of Mansell's drive extended to Palmer, who had been hit by Arnoux in the first corner shunt. His rear wing was replaced, but the Camel Tyrrell's undertray was also damaged and he had a wayward run here for seventh, unable quite to get on terms with Olivier Grouillard, who confirmed his early season promise with a

strong run to sixth and his first point despite a baulky gear shift. For the Pirelli runners it was a miserable weekend, the Italian rubber unsuited to a combination of the high ambient temperatures and the abrasive nature of the track, but the two most miserable people in the place were probably those old Formula Three sparring partners, Brundle and Senna. The former hit a kerb and failed even to prequalify. The latter led the first start, even though Prost had had the pole, but went only a couple of hundred yards in the second when his differential failed.

With no points from the last three races, giving him a total of four non-points finishes in seven races, and with Prost taking 18 from the last three, the championship that had seemed such a foregone conclusion for Ayrton at the beginning of the season suddenly seemed more remote. The whitewash had turned into a battle. □

Right: Second start, Senna stops — and Prost cruises to an 11-point lead (Allsport/Pascal Rondeau)



Below: Allez-y, Alesi! Jean made a brilliant debut in the Tyrrell (Allsport/Pascal Rondeau)





# 1989 FORMULA ONE GRAND PRIX ROUND SEVEN

## FRANCE

Circuit Paul Ricard

9th July 1989

Circuit Length: 2.369 miles/3.813 km

Laps: 80



(Allsport/Pascal Rondeau)

## Drivers' World Championship

Pos.	Driver	Total
1	Alain Prost	38
2	Ayrton Senna	27
3	Riccardo Patrese	22
4	Nigel Mansell	15
5	Thierry Boutsen	13
6	Alessandro Nannini	8
7	Michele Alboreto	6
8	Johnny Herbert	5
9	Alex Caffi	4
	Eddie Cheever	4
	Andrea De Cesaris	4
	Mauricio Gugelmin	4
	Stefano Modena	4
	Derek Warwick	4
15	Jean Alesi	3
	Christian Danner	3
	Nelson Piquet	3
18	Rene Arnoux	2
	Stefan Johansson	2
20	Martin Brundle	1
	Olivier Grouillard	1
	Jonathan Palmer	1
	Gabriele Tarquini	1

## Constructors' World Championship

Pos.	Team	Total
1	McLaren	65
2	Williams	38
3	Ferrari	15
4	Benetton	13
5	Tyrrell	10
6	Arrows	8
	Dallara	8
8	Brabham	5
9	Leyton House	4
10	Ligier	3
	Lotus	3
	Rial	3
13	Onyx	2
14	AGS	1

## Official Starting Grid

1.07.228	1	2	Alain Prost	1.07.228
			McLaren-Honda	
1.08.137	19	27	Nigel Mansell	1.07.458
			Ferrari	
1.08.233	28	5	Thierry Boutsen	1.08.210
			Williams-Renault	
1.08.993	6	30	Philippe Alliot	1.08.580
			Lola-Lamborghini	
1.09.036	15	3	Jonathan Palmer	1.09.008
			Tyrrell-DFR	
1.09.283	16	37	Bertrand Gachot	1.09.122
			Onyx-DFR	
1.09.524	9	36	Stefan Johansson	1.09.268
			Onyx-DFR	
1.09.668	4	29	Eric Bernard	1.09.598
			Lola-Lamborghini	
1.10.077	25	26	Olivier Grouillard	1.09.710
			Ligier-DFR	
1.10.135	11	12	Satoru Nakajima	1.10.118
			Lotus-Judd	
1.10.254	8	40	Gabriele Tarquini	1.10.218
			AGS-DFR	
1.10.292	20	23	Pierluigi Martini	1.10.280
			Minardi-DFR	
1.10.468	21	10	Eddie Cheever	1.10.372
			Arrows-DFR	

## Race Classification

Pos.	Driver	No.	Nat.	Car	Laps	Time/Retirement
1	A. Prost	2	Fra	McLaren-Honda	80	1:38:29.411
2	N. Mansell	27	GB	Ferrari	80	1:39:13.428
3	R. Patrese	6	Ita	Williams-Renault	80	1:39:36.332
4	J. Alesi	4	Fra	Tyrrell-DFR	80	1:39:42.643
5	S. Johansson	36	Swe	Onyx-DFR	79	
6	O. Grouillard	26	Fra	Ligier-DFR	79	
7	E. Cheever	10	USA	Arrows-DFR	79	
8	N. Piquet	11	Bra	Lotus-Judd	78	
9	E. Pirro	20	Ita	Benetton-Ford	78	
10	J. Palmer	3	GB	Tyrrell-DFR	78	
11	E. Bernard	29	Fra	Lola-Lamborghini	77	Engine
12	M. Donnelly	9	Ire	Arrows-DFR	77	
13	B. Gachot	37	Bel	Onyx-DFR	76	
NC	M. Gugelmin	15	Bra	Leyton House-Judd	71	
R	S. Modena	8	Ita	Brabham-Judd	67	Engine
R	T. Boutsen	5	Bel	Williams-Renault	50	Gearbox
R	S. Nakajima	12	Jap	Lotus-Judd	49	Electrics
R	I. Capelli	16	Ita	Leyton House-Judd	43	Engine
R	A. Nannini	19	Ita	Benetton-Ford	40	Suspension
R	P. Martini	23	Ita	Minardi-DFR	31	Overheating
R	P. Alliot	30	Fra	Lola-Lamborghini	30	Engine
R	G. Tarquini	40	Ita	AGS-DFR	30	Engine
R	G. Berger	28	Aut	Ferrari	29	Gearbox-Oil Leak
R	A. Caffi	21	Ita	Dallara-DFR	27	Clutch
R	R. Arnoux	25	Fra	Ligier-DFR	14	Gearbox
R	A. Senna	1	Bra	McLaren-Honda	0	Differential

Fastest Lap: Mauricio Gugelmin 1.12.090, 118.319 mph/190.412 km/h

## Non Qualifiers

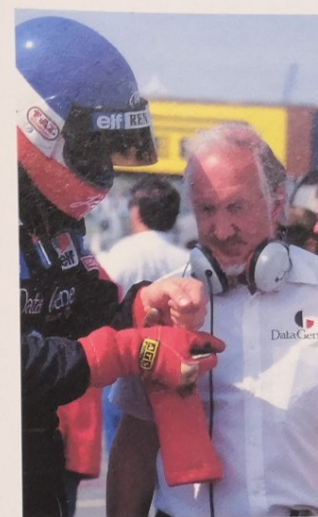
No.	Name	Car
22	A. De Cesaris	Dallara-DFR
24	L. Sala	Minardi-DFR
38	C. Danner	Rial-DFR
31	R. Moreno	Coloni-DFR

## Non-Pre Qualifiers

No.	Name	Car
17	N. Larini	Osella-DFR
7	M. Brundle	Brabham-Judd
39	V. Weidler	Rial-DFR
34	B. Schneider	Zakspeed-Yamaha
18	P. Ghinzani	Osella-DFR
32	P. H. Raphanel	Coloni-DFR
35	A. Suzuki	Zakspeed-Yamaha
33	G. Foitek	EuroBrun-Judd
41	J. Winkelhock	AGS-DFR

It was with great sadness that PEI heard of the death on June 5, 1989, of Maurice Phillippe, a design engineer whose twenty years' distinguished service in Formula 1 and elsewhere included major responsibility for the highly successful Lotus 49 and Lotus 72 Grand Prix cars. Born on April 30, 1932, in London, Maurice's early ambition was to design and build aeroplanes; he won an apprenticeship at the highly-regarded De Havilland Aircraft Company before going on to two years' National Service in the Royal Air Force. Returning to work in 1958, he left De Havilland at the end of the following year to join Ford, working first on development of the 1200cc Anglia range. He had already demonstrated a taste for racing himself, designing the 1172 MPS, a 105E-based singleseater for Formula Junior, and racing a Lotus 7 successfully in club events. Then came the call that would change Phillippe's life: from Colin Chapman, whose right-hand man he became, working with great drivers like Clark and Hill to achieve 34 Grand Prix victories in his time with Lotus. Not the least of his achievements there was to shoehorn the huge BRM H-16 engine

## Maurice Phillippe



(LAT)

into a Lotus 43 with which Clark gave the unwieldy engine its only GP victory; there was also the great joy of wedding the Ford-Cosworth 3-litre engine to the Lotus 49 in 1967 and starting that unit's long run of Grand Prix successes with Clark's win at Zandvoort. From 1971 to 1975 Maurice worked with the Vel's Parnelli Jones team in the US, then two years as a freelance were followed by his 11-year stay at Tyrrell. Despite victories with the 011 for Michele Alboreto at Las Vegas in '82 and Detroit in '83, that great team was sadly entering a period of decline — ironically now looking as if it may at last be over. Maurice left Ken's team in September 1988 to work as an independent design consultant and had recently been responsible, with Ron Tauranac, for the CART March-Alfa Romeo conversion. Maurice Phillippe was old-fashioned in that he scorned the politics of F1, valued friendships and was unfailingly courteous, not least of all to the editor of this magazine when he worked closely with the Tyrrell team in 1986. To his widow, Jose Patricia whom he married in 1966, his stepson Patrick and all who were close to Maurice PEI extends its deepest sympathy. SWS

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# RACE REPORT SILVERSTONE

DAVID TREMAYNE



The tide certainly seemed to be running against Ayrton Senna when the dust finally settled on the British GP. And as far as he was concerned, much of it had been gravel dust, which he had kicked up.

For 11 laps, the Brazilian hung on at the head of the field, under intense pressure from team-mate Alain Prost (who had qualified alongside him on the front row of the grid) and Nigel Mansell, the danger man. In the lead McLaren, Senna knew he had a serious problem with the new transverse gearbox. Despite miles of reliable testing, his and Prost's units had leaked oil the moment free practice began on Friday, and though that had been cured, Senna now had difficulty downshifting to third.

Prost, who'd allowed himself to drop five car lengths back as they headed into Becketts on lap 12, to stay out of Senna's turbulence, could see what his rival was encountering, and began to smile. He'd had exactly the same problem throughout qualifying, and applied subtle enough pressure to exacerbate Ayrton's discomfort. Going into the corner that lap, the

number one MP4/5 suddenly snapped sideways as Ayrton encountered neutral and spun backwards into the gravel bed, where it stayed firmly embedded.

Prost, Mr Honest, laughed as he took the lead and headed towards the 38th victory of his glittering career. "Yes, I laughed," he admitted. "And I always tell the truth."

The animosity between the two has been simmering since Imola, and just before the race Prost had made it crystal clear why he has chosen to leave the team for which, at that time, he had won 28 of his 37 victories. He doesn't like Ayrton, and he doesn't trust him. He hates the atmosphere within the team, and he wants out, even though Ron Dennis would like him to stay and he would rather not go. Senna, unfairly jeered by the crowd, as he climbed from his stricken car, stood watching Prost's progress for a long time. His face was a mask, the thoughts behind it only imaginable.

If Senna was Prost, he would have eased a fraction, even if it meant surrendering the lead, and then attacked later when he had become hunter rather than hunted.

Senna is Senna, however, and that means never accepting second best. Ayrton pushed and paid the price for a mechanical problem.

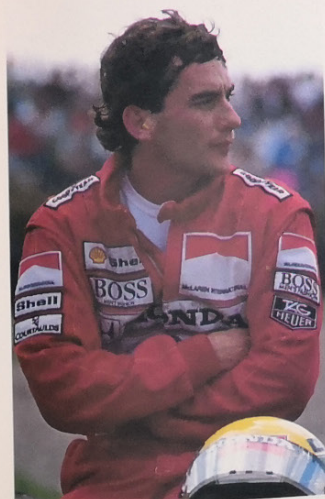
For sure, one of the thoughts behind the mask concerned his points score. With only three points finishes in eight races — all of them wins — he now lagged 20 behind Prost, whose 47 suddenly looked very menacing.

Senna also monitored Mansell's progress very carefully. Fortunately for the crowd, Mansell is always Mansell, and the 1989 version is the best yet. In Ricard he had felt cheated out of his chance to pressure Prost, when he had to start from the pit road, and he felt good about Silverstone, knowing his fast sweeps would favour his Ferrari's aerodynamics and handling, and minimise its bottom-end power deficiency.

That was pretty much how it panned out, too, with the red F1 89s of Mansell and Gerhard Berger lining up on the second row right behind the McLarens, all of them in the 1m 09s bracket. The morning warm up brought better news still, when Mansell was fastest by four tenths from Prost and Senna.

Ayrton, in the perfect position to observe, could see the progress Ferrari has made, and knows full well that with Mansell aboard it could prove a major thorn in McLaren's side for the remainder of the season. Since 1988 McLaren has been used to two-man opposition to its supremacy — Senna and Prost. And Prost recently admitted that was a situation that played more in Ayrton's favour than his own, since it puts a premium on pole position when the one man you have to race has equal machinery. If Mansell — or Berger, given greater mechanical fortune — becomes a spoiler in that plot, Prost is the master of manipulation. Senna had seen that in 1986, when the Frenchman picked up the pieces left after the Williams drivers had beaten each other to pulp. Mansell, too, knows that full well, having come off second best. Without championship pressure on him — the Briton is aiming realistically at 1990 — he is ideally placed to put a cat among the Woking pigeons.

Back in '86, of course, Nelson Piquet was still rated as a star, but since the move to Lotus he has looked more like an old ham trying desperately to maintain a reputation with minimal input. If you're cynical, you'll believe the story at Silverstone that Camel had finally gotten round to putting a rocket in one of his delicate places by threatening to rest him (the 'in' thing in F1 at present). Whatever, the Brazilian looked like the Nelson Piquet who has won 20 GPs



throughout the British GP weekend, and it was a welcome sight to see him qualify the Lotus 101 10th and then occupy a fighting third for a long time.

In the end, he had to give best to a flying Sandro Nannini, delayed by an early stop for new Goodyears after full-tank understeer had killed his fronts, but it was still an honourable fourth that proves Frank Dernie's car is nowhere near as bad as lacklustre driving has made it look in previous races. Piquet was very quick in the fast corners, and had excellent brakes.

Interestingly at Ricard Martin Donnelly had said the Lotus was superior to the Arrows in the fast stuff, but worse in slow corners, and while Nakajima backed Piquet with a reasonable eighth (both of them running high engine temperatures), Derek Warwick was Arrows' only representative as Eddie Cheever failed to qualify. After the kart accident that kept him out of the French GP, Warwick staged a brave recovery to take a hard-won ninth.

Nannini's performance gave another interesting pointer. With Berger (off to McLaren at the end of the year, as expected) running into early electronic problems and then retiring with a duff transmission, the Benetton was the only car other than Prost's and Mansell's to break into the 1m 12s in the race. Mansell set fastest lap on lap 57, with 1m 12.017s or 148.465 mph. Prost did 1m 12.193s on lap 58 and Nannini managed 1m 12.397s on his 54th lap. All of which suggests that those who predict the eclipse of the V8 may have to eat their words. The signs for Benetton and Ford are finally swinging round towards encouraging after the disastrous start to the season, and if the 1990 regulations, as they are expected to, require longer rather than wider fuel tanks, short engines will become ever more important...

Just as there were many mediocre performances at Silverstone, so there were some worthy of special mention. Warwick's grit apart, Martini was most impressive. On paper fifth place for Minardi was no great shakes, about what you'd expect,

but Piero's drive was an indication of the manner in which he has developed since the days of ridicule and struggle in 1985.

The M189 has always overheated, ever since it first appeared in Mexico, but at Silverstone his car ran with larger radiators and ducts. Even then, however, the rising needle on the water temperature gauge obliged him to pit from eighth place on lap four and he'd dropped to 23rd by the time the team worked out that the damn gauge itself was faulty. Thereafter, Martini drove his heart out and recovered to take his best result in an F1 race and his first points since his comeback sixth in Detroit last year.

The achievement brought more than personal satisfaction, too, since the Minardi team desperately needed points to avoid having to prequalify. When team mate Luis Sala managed to fend off the determined Olivier Grouillard for sixth in the closing stages, Minardi's sudden injection of three points elevated it to joint 11th in the Constructors' Championship, just clear of the top 13 cut-off mark. The fillip couldn't have been more timely.

Brabham had one of those miserable weekends, with both Stefano Modena and Martin Brundle retiring with engine maladies, but at least Silverstone marked the last time the Nippon Shinpan team will have to take part in prequalifying, which was suitable cause for celebration. Modena, incidentally, main-



Left: Four consecutive non-finishes made Ayrton Senna sit and ponder... (LAT)

Right: But that left Alain Prost sitting pretty again (Allsport/Pascal Rondeau)





For Minardi, the storm clouds had been gathering — but Martini and Sala blew them all away (Allsport/Pascal Rondeau)

tained his record as the only driver to prequalify at every race. Larrousse also desperately needed to score, but neither Philippe Alliot nor Eric Bernard made it home. Both ran into gear selection problems before their Chrysler Lamborghini engines lost power, so the team is now in the early morning dash on Fridays. That said, both cars ran well and Alliot again qualified strongly, in 12th slot, which suggests the package continues to improve.

After the Ricard showing of Jean Alesi, much was expected from Camel Tyrrell, and certainly Uncle Ken expected some points. Instead, he got two retirements from driving errors. Alesi, back in the car on a race-by-race basis after negotiations with Michele Alboreto had broken down irretrievably (sounds like a divorce, which is essentially what is), stormed up to sixth after qualifying poorly when the team couldn't find a decent set-up. As he was running right behind Alliot at Club on lap 29, however, he lost downforce, spun across Nakajima and Brundle and stalled on the infield. Palmer, in dire handling and overheating trouble throughout, lost it coming out of Stowe four laps later, and took off the right front wheel.

If Tyrrell was unhappy, Onyx was suicidal. Johansson failed to prequalify, and Gachot's euphoria at topping that session's times had evaporated by the time he crunched off the two left hand wheels at Copse in the race day warm-up.

He ran the spare but couldn't better 12th, and Minardi's enhanced fortune pushed the team out of the crucial Top 13. After the uplift in Ricard, that was a crushing blow.

And March, of whom so much had been expected? Mauricio Gugelmin's prediction that the cars would fly proved correct when he qualified sixth and Ivan Capelli eighth, but the Brazilian's race car developed a water leak on the grid and he drove the spare heroically from the pit road to fifth when the transmission failed on lap 55.

Silverstone always seems to bring out the best in Nigel Mansell — and his 1989 form for Ferrari may be the best yet. For the second year running he scrapped magnificently only to come off second best, but the crowd could scarcely contain themselves when he playfully hopped on to the top step of the rostrum. Just practising for 1990...



(Allsport/Pascal Rondeau)

Capelli, right in the initial battle for third with the Williamses of Boutsen and Patrese, Nannini and Piquet, lasted only 16 laps before his transmission broke.

Neither was there much promise restricted to 10th after running most of the race without a clutch, and Patrese having a major shunt at Club while running an easy third, when water sprayed on a rear tyre after a stone had punctured a radiator. Since Montreal the Didcot cars have lost a little momentum, although both drivers agree the Phase Two Renault is stronger than the initial version of the RS01 V10. Both are looking forward with impatience to the debut of the new FW13, currently scheduled for Hungary. As a race, the British GP didn't quite develop into the cliffhanger the fans craved. It did, however, come close to making sensational headlines. Delayed on the warm-up lap by a loose mirror, Nicola Larini was running half a lap behind the field and was astonished to come barrelling round Woodcote to begin his second lap, only to find Jean-Marie Balestre and FISA Circuit Safety Officer Roland Bruynseraede scuttling for safety only feet away. They had crossed the track at the entrance to the pit lane, after starting the race from the gantry on the opposite side, and had forgotten all about the screaming Osella until it was almost upon them...

## 1989 FORMULA ONE GRAND PRIX ROUND EIGHT

### GREAT BRITAIN

Silverstone Circuit

16th July 1989

Circuit Length: 2.969 miles/4.778 km

Laps: 64



(Allsport/Pascal Rondeau)

### Drivers' World Championship

Pos.	Driver	Total
1	Alain Prost	47
2	Ayrton Senna	27
3	Riccardo Patrese	22
4	Nigel Mansell	21
5	Thierry Boutsen	13
6	Alessandro Nannini	12
7	Michele Alboreto	6
8	Nelson Piquet	6
9	Johnny Herbert	5
10	Eddie Cheever	4
	Andrea De Cesaris	4
	Mauricio Gugelmin	4
	Stefano Modena	4
	Derek Warwick	4
16	Jean Alesi	3
	Christian Danner	3
18	Rene Arnoux	2
	Stefan Johansson	2
	Pierluigi Martini	2
21	Martin Brundle	1
	Olivier Grouillard	1
	Jonathan Palmer	1
	Luis Sala	1
	Gabriele Tarquini	1

### Constructors' World Championship

Pos.	Team	Total
1	McLaren	74
2	Williams	36
3	Ferrari	21
4	Benetton	17
5	Tyrrell	10
6	Arrows	8
	Dallara	8
8	Lotus	6
9	Brabham	5
10	Leyton House	4
11	Ligier	3
	Minardi	3
	Rial	2
14	Onyx	2
15	AGS	1

### Official Starting Grid

Alain Prost	1.09.266	2	1	Ayrton Senna	1.09.099
McLaren-Honda				McLaren-Honda	
Cerhard Berger	1.09.855	28	27	Nigel Mansell	1.09.488
Ferrari				Ferrari	
Mauricio Gugelmin	1.10.336	15	6	Riccardo Patrese	1.09.865
Leyton House-Judd				Williams-Renault	
Ivan Capelli	1.10.650	16	5	Thierry Boutsen	1.10.376
Leyton House-Judd				Williams-Renault	
Nelson Piquet	1.10.925	11	19	Alessandro Nannini	1.10.798
Lotus-Judd				Benetton-Ford	
Philippe Alliot	1.11.541	30	23	Pierluigi Martini	1.11.368
Lola-Lamborghini				Minardi-DFR	
Stefano Modena	1.11.755	8	29	Eric Bernard	1.11.687
Brabham-Judd				Lola-Lamborghini	
Satoru Nakajima	1.11.960	12	24	Luis Perez Sala	1.11.826
Lotus-Judd				Minardi-DFR	
Jonathan Palmer	1.12.070	3	17	Nicola Larini	1.12.061
Tyrrell-DFR				Osella-DFR	
Martin Brundle	1.12.327	7	9	Derek Warwick	1.12.208
Brabham-Judd				Arrows-DFR	
Jean Alesi	1.12.341	4	37	Bertrand Gachot	1.12.329
Tyrrell-DFR				Onyx-DFR	
Olivier Grouillard	1.12.605	26	31	Roberto Moreno	1.12.412
Ligier-DFR				Coloni-DFR	
Emanuele Pirro	1.13.148	20	22	Andrea De Cesaris	1.12.904
Benetton-Ford				Dallara-DFR	

### Race Classification

Pos.	Driver	No.	Nat.	Car	Laps	Time/Retirement
1	A. Prost	2	Fra	McLaren-Honda	64	1.19.22.131
2	N. Mansell	27	GB	Ferrari	64	1.19.41.500
3	A. Nannini	19	Ita	Benetton-Ford	64	1.20.10.150
4	N. Piquet	11	Bra	Lotus-Judd	64	1.20.28.866
5	P. Martini	23	Ita	Minardi-DFR	63	
6	L. Sala	24	Spa	Minardi-DFR	63	
7	O. Grouillard	26	Fra	Ligier-DFR	63	
8	S. Nakajima	12	Jap	Lotus-Judd	63	
9	D. Warwick	9	GB	Arrows-DFR	62	
10	T. Boutsen	5	Bel	Williams-Renault	62	
11	E. Pirro	20	Ita	Benetton-Ford	62	
12	B. Gachot	37	Bel	Onyx-DFR	62	
R	M. Gugelmin	15	Bra	Leyton House-Judd	54	Gearbox
R	M. Brundle	7	GB	Brabham-Judd	49	Engine
R	G. Berger	28	Aut	Ferrari	49	Transmission
R	E. Bernard	29	Fra	Lola-Lamborghini	46	Engine
R	P. Alliot	30	Fra	Lola-Lamborghini	39	Engine
R	J. Palmer	3	GB	Tyrrell-DFR	32	Spun
R	S. Modena	8	Ita	Brabham-Judd	31	Engine
R	J. Alesi	4	Fra	Tyrrell-DFR	28	Spun
R	N. Larini	17	Ita	Osella-DFR	23	Handling
R	R. Patrese	6	Ita	Williams-Renault	19	Spun
R	I. Capelli	16	Ita	Leyton House-Judd	15	Differential
R	A. De Cesaris	22	Ita	Dallara-DFR	14	Engine
R	A. Senna	1	Bra	McLaren-Honda	11	No 3rd gear/spun
R	R. Moreno	31	Bra	Coloni-DFR	2	Engine

Fastest Lap: Nigel Mansell 1.12.017, 148.465 mph/238.924 km/h

### Non Qualifiers

No.	Name	Car
25	R. Arnoux	Ligier-DFR
10	E. Cheever	Arrows-DFR
40	G. Tarquini	AGS-DFR
38	C. Danner	Rial-DFR

### Non-Pre Qualifiers

No.	Name	Car
36	S. Johansson	Onyx-DFR
21	A. Caffi	Dallara-DFR
33	G. Foitek	EuroBrun-Judd
18	P. Ghinzani	Osella-DFR
41	Y. Dalmás	AGS-DFR
34	B. Schneider	Zakspeed-Yamaha
32	P.H. Raphanel	Coloni-DFR
35	A. Suzuki	Zakspeed-Yamaha
39	V. Weidler	Rial-DFR









Main picture: Senna was shell-shocked  
(Allsport/Vandystadt).

Clockwise from top left:

**In a word**, elation for Mansell (LAT);

approbation (LAT);

conversation between Prost and Stewart (2)

(Allsport/Darrell Ingham);

explanation from Senna to Berger

(Allsport/Vandystadt);

preparation for Gachot

(Allsport/Pascal Rondeau);

trepidation for Ken Tyrrell

(Allsport/Pascal Rondeau);

determination from Senna at the start (LAT);

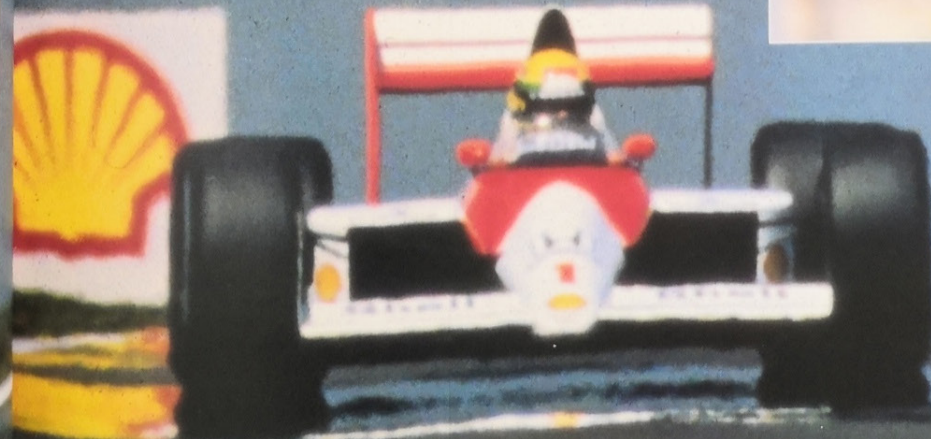
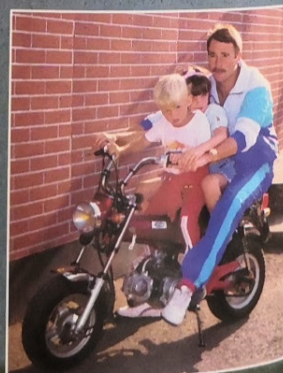
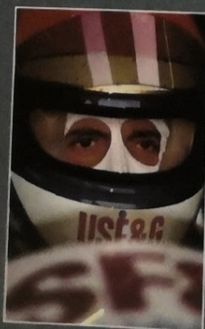
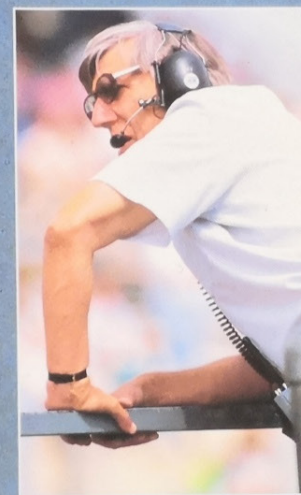
relaxation for a family Mansell (LAT);

inspiration from Nannini in

the new Benetton (Sporting Pictures);

and non-qualification for Cheever

(Allsport/Pascal Rondeau).





# Michele ALBORETO

By David Tremayne



(Keith Sutton)

In the beginning, it all looked so promising. Michele Alboreto had shed that careworn look that had become his permanent expression in his final years at Ferrari, and seemed genuinely happy to be back at Tyrrell, in many ways his spiritual home. The new liaison brought the duo points in Monaco and again at Mexico, but then came the glitch after Canada. With Johnny Herbert being rested by Benetton, the vacancy looked attractive to Michele. Relations with Tyrrell took a dip, although Ken fervently hoped to have him back in the car after Jean Alesi stood in for him in France. Michele, however, felt there could be no going back. 1985 was the quiet Italian's best in Formula One, a time when the

promise he had shown in his Tyrrell days was finally beginning to pay off, when he seemed set to build on his initial Zolder success with Ferrari in 1984. It seems a long, long time since his 156/85 headed Prost so deftly round the streets of Monaco in 1985. Nowadays, Michele doesn't speak much of his years with the Prancing Horse, but some of his better days there are well worth remembering. In that Monaco race he led after Senna's demise, surrendered the lead to Prost after sliding up the escape road at Ste Devote on the oil left after the fiery tangle between Riccardo Patrese's Alfa Romeo and Nelson Piquet's Brabham, and then tigered back to take the lead again. Think about it. Until Senna joined McLaren,

Prost was the King of Monaco. Admittedly he had a problem with his TAG V6 in the race, but Michele was in sublime form. Ultimately, only a deflated rear tyre prevented him winning, and he still managed second, some seven seconds adrift of the Frenchman. Such promise duly took him to a dominant win in Canada, and for six glorious races that summer he headed the World Championship table, from Canada to Austria. Then Prost really got into his stride, and after finishing third at Zandvoort Michele didn't score again. From neck and neck with Prost, he simply stood still as his rival speared into the distance. Ferrari had screwed up, 'Big Time' as Mike Kranefuss might say. Typically, Michele didn't rant and



Happy memories: Michele gives Tyrrell victory at Detroit in '83 — the last normally-aspirated success until this season

(LAT)

rave, he just kept a tight rein on his feelings. Perhaps he should have made more fuss, yet bar a few remarkable outbursts over the years, he has established a reputation as one of the most even-tempered Italians in recent Formula One history. The move to Ferrari should have produced so much more than it did. 1986 brought no further wins to add to the three he'd already scored for Ferrari, and his previous two for Tyrrell, but it wasn't really until the following year that the magic roundabout stopped revolving. For 1987 he had a new team mate, Gerhard Berger, and before long the Austrian was proving slightly faster. At Ferrari, that is sufficient. The tide within the camp began to change. In the days of Enzo Ferrari the shortcomings of the machinery were always forgotten faster than those of a driver. By 1988 memories had successfully expunged the technical let-down that had cost the Italian his 1985 crack at the championship. By then, he was getting the cold shoulder treatment so many others before him had experienced. It was time to move on. "The last two years at Ferrari were really bad for me," he admits readily. "I was often in a good position, but I

never won any races. There was no support, and it was just like starting all over again. The past had been forgotten. "The first part of '87 was okay, then things began to go downhill very quickly. After Silverstone and before Monza, was very bad. And in 1988, Mr Ferrari is in such poor health motor racing is the last thing he wanted to be thinking of. "The workers began to panic, the team lost direction. Fiat began to put in lots of people who didn't know anything about racing. Harvey left. The whole thing began to fall apart. "In 1985 the spirit had been right — even though we didn't even have a wind tunnel! But by 1988 things for me were really bad. It got to the stage where I just couldn't drive at 100% any more." For most of the season he ran in Berger's shadow as the psychological pressure took its toll, and steadily his relationship with Ferrari was ground away. Usually incredibly polite, he had even taken to being openly critical of Ferrari and the way it went racing. He also let it be known he had little faith in the new car being drawn by John Barnard. "When I saw it I knew it didn't have enough

power, and I still don't believe the automatic gearbox is the right way to go," he said at the beginning of the existing season. 1988 was a thin year. He was third at Monaco, behind Prost and Berger, and third again at Ricard where, for once, he tucked the Austrian up to finish one place ahead of him. Then he and Gerhard upset the McLaren monopoly as they vied for the pole at Silverstone. Michele was fastest of them all in the first qualifying session, and ultimately only lost out to Berger by a fraction. Later, at Monza, he proved a point by dogging his team mate to the flag, finishing second mere inches behind. By then, however, any reconciliation with the new Ferrari management was long gone. Enzo Ferrari was dead, and Nigel Mansell had already agreed terms for 1989. Estoril, not Monza, was the true epitome of the twilight of his Ferrari career. He was third going into the 70th and final lap, having driven the latter stages with his eye on his cockpit fuel readout. In the final mile the Ferrari coughed and spluttered and just made it across the line, passed by Boutsen's Benetton and Warwick's Arrows. "Ferrari!" he spat,



lived. "Even the computer is a liar!" While Mansell had been busy securing his future, Michele had not been idle, having already decided long before Silverstone that a move was essential for 1989. Since Monaco there had been talk of a deal with Williams, and for a long time he maintained a low profile, simply allowing: "I have shaken hands on a deal." It fell through, however, when Patrick Head insisted Williams maintain some level of continuity by retaining Riccardo Patrese. If Michele felt as if somebody had stood on his fingers as he gripped the rung of the ladder, he nonetheless kept a diplomatic silence, and then along came his former boss, Ken Tyrrell. The two clearly maintained a superb relationship all through Michele's Ferrari years, and every Christmas he faithfully attended the team's party. Suddenly, a reunion was on the cards.

"The funny thing is, how he came to us in the first place," chuckles Ken. "He'd just won the 1980 European Formula Three Championship, but I can't say I put much credit in that. But he was up and coming. Then, out of the blue — they approached us, not the other way round — we had a telex from Candy's people, who wanted to sponsor us. Well that year we had Eddie Cheever in one car, but used Desire Wilson at Kyalami, then Kevin Cogan at Long Beach and Ricardo Zunino in Brazil and Argentina. There we were, facing the fourth race at Imola, and there was Candy offering us money!

"We signed Michele for three races, at our option to continue beyond that, and repainted his car overnight. He did so well in his races that we took up our option."

The second time around, however, the call very definitely came from Ken. As soon as he realised the Williams door had been slammed in Michele's face, the two began talking. By October the deal had been thrashed out, and in December Michele travelled to Long Beach to sign. "I well remembered the way to come!" he joked.

On the face of it, he was going backwards. After all, hadn't he left Tyrrell in a fanfare of trumpets to join Ferrari at the end of 1983? Michele himself never saw it that way. To him, the matter was clear cut.

"At Tyrrell I have people who believe in me as a racing driver, people who share my aims and ambitions," he said at the start of the season, "I cannot tell you how good it feels to



Top: "There was that much in it". Palmer makes a precise point as Michele and team Tyrrell listen

Centre: New car for the new boy: 018 looks good, so does the Alboreto future

Left: Smiling again: Michele enjoys Phoenix

return. It is fantastic to be back Fantastic!

"I know Ken, I know Harvey, I know Jean-Claude Migot, our aerodynamicist. We all want to be back on top. There was the wrong feeling at Ferrari, but here we have the right atmosphere to do it. I had offers from other teams, some of them mediocre, but I couldn't see the potential there. Here it is different, for sure. It will be difficult, but I believe we can come back. I can see the potential here. And I am talking not short-term, but long. I am looking at the next three years."

He and Ken had developed a strong bond, that had mellowed over the

intervening years. When he last drove for the English team, Michele respectfully referred to his employer as Mr Tyrrell most of the time, even when Ken wasn't a party to the conversation. At the beginning of 1989 there was more knockabout humour but the same respect was still evident. Even in times of stress. After the Brazilian Grand Prix it was clear he just didn't fit into the 017B, and the first of the new 018s was thus earmarked for his use at Imola, "because he didn't fit the old car, and because it is his home race," said Ken. Michele failed to qualify as he tried to sort the new machine in changing weather and track conditions, and Palmer was to run the car at Monaco. Michele's 018 was due on Saturday, and he thus refused to drive the 017B in Friday's qualifying session. Had it rained on Saturday it would have been a rash decision, but as he was adamant there was little point, so cramped were his working conditions. Tyrrell, while in obvious disagreement with such philosophy, did not press his charge, commenting: "I would never force a driver to run when he doesn't want to."

In the race, Michele ran home a fine fifth, and although Jonathan voiced criticism when the Italian refused to move over and let him unlap himself, it was aimed more at Ken for not

assessing the situation, than at Michele. The two work well together, aware that they will be good for each other and that internal harmony makes for better progress. To Palmer, Alboreto is an established Grand Prix winner who will be his immediate yardstick. To Alboreto, Palmer is a pushy teammate who won't ever allow him to relax. Between them, they have already illustrated that Postlethwaite and Migot's 018 is a quantum leap over the unloved 017B, and that the foundation for success still exists beneath the Tyrrell organisation. Indeed, Michele is adamant that he would have finished an easy second to Prost in Phoenix... North America, of course, was always good to him in his early Tyrrell days, and Ken tells a good story of his Las Vegas success in 1982.

"Naturally, the casinos were running a book on the race, and when I saw that they were offering 20:1 on Michele I got down there in a hurry. I just had a feeling he'd be right. By the end of the first day he'd gone down to 10:1, then 3:1 before the race. By then he was third on the grid. When Michele passed Prost for the lead on the 52nd lap his friend Oscar simply cried his heart out. Tears were rolling down his cheeks and he just couldn't bear to watch the remaining 23 laps. He was still crying for most

of the evening, he was just so happy for Michele!"

Detroit in 1983 gave him his second win, the last for a normally aspired car until the passing of the turbos. "You know," says Tyrrell, "that race helped change racing a little. Ford wasn't going to do a turbo engine, but as a result of that win Walter Hayes was able to lunch with the top brass and persuade them to release the financial resources for the V6." It remains to be seen whether Tyrrell and Alboreto will return to the top slot of a Formula One podium. Already this year, in Rio, Michele has provided a measure of endorsement of the long-held assessment of his driving style: that if the equipment isn't spot-on, he will automatically drop down a lower mental gear. But equally, his performances in Monaco, Mexico and Phoenix suggest that he is still capable of producing winning form when the machinery is right. For a time, he seemed genuinely relaxed in 1989, driving as well as ever in the 018. Then came the glitch and the stand-off, perhaps a product of his pride. The "very good spirit" with which he had approached the start of the season had, sadly, evaporated, and cast a whole new shadow over his Formula One career. ■

The drive is back: Alboreto puts 018 through its paces



(Alboreto/Pace/Rondeau)



# SALA



## SPANIARD IN THE WORKS

BY ISABEL VIDAL

Luis Perez Sala has taken part in more Formula One races than any other Spaniard in history, and is currently the only man from his country to be driving in the world's premier racing category — yet, to English-speaking audiences in particular, he remains something of an unknown quantity. Born in Barcelona on May 15, 1959, Luis is the seventh in a family of five

boys and three girls. He still lives in the great city on Spain's north-eastern coast when the race schedule allows him, spending the majority of his time at Faenza, Italy, home base of the Minardi team for whom he is now engaged on his second year in Formula One. The passion for motor

sport was inherited from his brothers Enrique, Javier and Carlos, who have all driven in a variety of national racing competitions, Carlos being the most conspicuously successful in the now-defunct F1430. The young Luis was soon familiar with the racing milieu, and his own move into the driving seat was a form of very natural progression.

As with most of today's top drivers, Luis Perez Sala — after learning to drive in a Seat 600 at a ridiculously early age — had his first competitive experience in karting. Once the official age and driving licence were attained, young Senor Sala acquired a Renault 8 as the means of transport to his architectural studies in the nearby University of Sabadell. While pursuing his studies, Luis was also gaining a commercial education, as his merchant father wanted Luis to follow in the family footsteps. Spare time saw the young man taking every opportunity to watch motor racing at Montjuich, then the Barcelona home of the Spanish Grand Prix. To anyone with a love of Grand Prix history, Luis has one impeccable credential: when pesetas were not available in sufficient supply, he would actually crawl under the Montjuich fencing to see his idol Jim Clark in action! To be like the great Scottish driver was his consuming ambition.

The year 1979 saw Sala take the first steps towards a genuine racing career, starting in F1430. Usual story: low budgets, sub-standard equipment... But in 1980, with the help of brother Carlos, Luis got to grips with the Copa Renault. On April 20 of that year came the first major landmark, with his first win at Jarama, the circuit just outside Madrid — to a Catalan like him, Spain's "other" city! Success overall in the Championship was sealed, much to the joy of his mother Monserrat, the most important personal supporter of Luis throughout his career to date.

The following year brought a slight pause in the Sala surge, known as National Service. Nothing daunted, Luis took "leave" to win the Renault Two-Hour race at Jarama, supported in his fledgling career by fellow-drivers Luis Villamil and Zapico. For



Birmingham, Barcelona... and Sala's breakthrough with a fine F3000 win

(L47)

1982 they formed the Alfa Sprint team representing Spain in the European Championship, Sala finishing ninth in that debut season and runner-up one year later. So to 1984: aided now by personal manager Manolo Gomez Blanco, Luis raised the all-important sponsorship budget to go racing in European Formula Three, taking a fine second place in the Knutsdorp round en route to 10th position in the Championship. His studies now behind him, Luis raced in 1985 in Italian Formula Three at the wheel of a Ralt RT3 belonging to the Luciano Pavesi team. The final stepping stone to a Grand Prix drive, these days, is Formula 3000, and Luis

duly got his chance with Pavesi in 1986. They were prophetic days: his teammate was none other than Pierluigi Martini, now his partner with Minardi in Formula One.

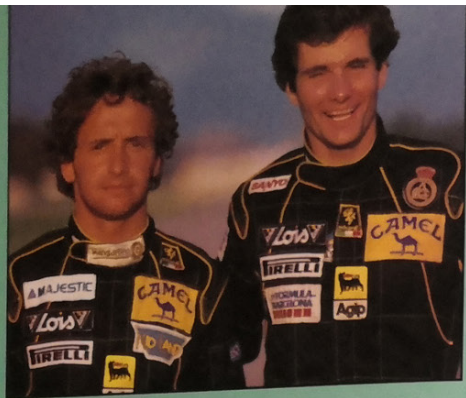
Soon Sala's name was on the lips of European journalists. With victories at Enna and in the rain-soaked inaugural Birmingham Formula 3000 race and points in seven out of the eleven rounds, Sala was fourth overall in the series. British racing fans will remember, indeed, that at the time Birmingham was pursuing its bid for the 1992 Olympic Games, Sala came to the street race there with sponsorship from Barcelona proudly emblazoned on his car. Does the fact that Barcelona subsequently won the right to stage the Games indicate that this man is on a winner? Looking to build on that achievement in 1987, Luis moved on to the Lola Motorsport team with Mader-Cosworth DFV power — and went even better. Victories from pole position at Donington Park and Le Mans, rostrum finishes at Imola and Vallelunga... Luis Perez Sala was runner-up in the 1987 Formula 3000 Championship, and clearly higher times were about to beckon.

They did so in the shape of Giancarlo Minardi, whose other Grand Prix driver for 1988 was Luis's compatriot Adrian Campos. Taking to his new surroundings well, Sala was classified in his second race, at Imola, finished well in several other rounds and generally impressed with the way he set about learning the very different business of being a Formula One driver. As Campos honestly admitted his failure to do the same, Sala was reunited in mid-'88 with Pierluigi Martini, and the two are now getting to grips with the most handsome Minardi to date, the M189 introduced at the Mexico round of the 1989 World Championship.

Opposite page: Eye-catcher: the M189 is the handsomest Minardi we have seen (Heike De Vries)  
Below: Hardworking driver: Sala in action at the 1989 Canadian Grand Prix in Montreal (John Townsend)







Together again: Martini (left) and Sala are Minardi's driving force  
(John Townsend)



Above Right: Cool, but not aloof: Sala stands and waits  
(Sporting Pictures)



Left: Right on the line: Sala speeds on the Phoenix streets  
(Henke De Vries)

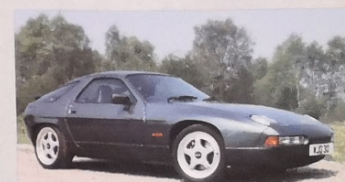
placed too great a strain on them. But nowadays Giovanna is again a constant presence beside Luis at the races, and Giancarlo Minardi has been known to assist her in the pursuance of her own career — even down to the point of helping her find finance for tyres.

Outwardly calm to the point of aloofness, Luis denies being a cold individual. "Most people seem to think I don't feel things", he maintains, but it isn't so. I may not usually show those feelings, but just because I keep things in my own mind, that does not mean I am a cold man." Once he begins to feel comfortable with people, in fact, Sala demonstrates a perky sense of humour that stands him in good stead. The only Spaniard in the current Formula One works, Luis Perez Sala is the representative of a new generation of Spanish drivers, dedicating his professional and indeed his personal life to improving all the time at what he does. With the inherent pride of the Catalan, he is one of the hardest-working drivers on the current Grand Prix scene.

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# CAFFI

## WITH THE CREAM

Let's get one thing straight. It is the most desperately difficult task for a journalist to assess accurately the talent of a rising Formula One star in his earliest stages. Team managers have an easier time — although to judge by some of the questionable driver selections in recent years you might be forgiven for thinking that some of them were using a braille form guide. In general, though, they have access to more inside information which they ought to be able to use to accurate effect.

That said, I think a lot of people take the view that if an inexperienced youngster makes an impression at the wheel of an old nail one somehow feels enormously impressed. Grand Prix racing, we're all being told, is about being in the right place at the wrong time. At the 1986 Italian Grand Prix, Alex Caffi seemed — in the sense that he was in the cockpit of an Osella contesting a Grand Prix at Monza.

By Alan Henry

Two years later, I sneaked round the back of the Canon Williams transporter in that same Monza paddock as Caffi was ushered in for a brief chat with The Man. He spent about 20 minutes chatting to Frank, but nothing seems to have come of it. Not yet, at least. But when we watched him winging round Phoenix this year, briefly occupying second place, at the wheel of Beppe Lucchini's Dallara, one was bound to wonder why on earth he hadn't been picked by a top team. On the strength of what he'd managed for Dallara the previous year.

There certainly does not seem to be any question mark hanging over his ability behind the wheel. Whilst allowing that the current Dallara is clearly a good chassis, Caffi contrives to produce speed with an economy of effort that echoes the style of many great drivers over the decades. Stewart, Lauda and Prost all shared the distinctive ability to go into 'slow motion' whilst turning highly competitive lap times. It is premature to suggest that Alex has the stamp of genius about him, but, to date, he has radiated all the right signs...

I have a suspicion that Caffi just isn't sufficiently glamorous for some people in this business. Inspired by the exploits of his father and uncle in Italian national hillclimbing, this young man from the small town of Rovato, in the shadow of the Italian Alps, was set on a racing career from an early age. He came up the usual way for a young Italian. First karting, then a stint risking his neck in Formula Fiat-Abarth, and finally up into Formula Three at the age of 20 in 1984.

By 1986 he was in amongst that frantic demi-monde of aspiring international talent inevitably contesting the Monaco Formula Three supporting race. You know, with other names you've never heard of — like Modena and Larini.



Above: His on track performances in the Dallara have been smooth, stylish and effective

Opposite Page: Alex Caffi "Not sufficiently glamorous?"

Overleaf: The Dallara handles well

Below: With eyes to the future Alex studies the form

(John Townsend)

(Keith Sutton)

(Keith Sutton)

(John Townsend)





People that the old-timers don't even bother to give a second glance as they struggle wearily back to their hobs in the Principality after a tiring day watching the second Formula One qualifying session.

Lack of funds, however, kept him bogged down in Formula Three. Even though he won the 1985 European Championship, there was no alternative but to remain in the category for the following year. He won the supporting race at the San Marino Grand Prix, but still nobody seemed to take much notice. But his continuing pre-eminence in the national Italian Formula Three series eventually led to that invitation to drive an Osella at Monza.

Running alongside Osella stalwart Piercarlo Ghinzani, Caffi qualified just outside the top 26, but all the team managers signed to say they didn't object to an additional starter. He was up and running in Formula One, even though he spent most of the day getting out of the way of faster cars. But that was precisely the point that impressed. The manner in which he kept flogging round to the finish, without tripping up any of his more exalted rivals, was an object lesson in how to conduct a Grand Prix debut. After that, a lot of people had an elusive, difficult to pin down, 'feeling' about Alex.

Even though his obligatory stint of military service interrupted things

for a few months, he still managed to negotiate his way into an Osella drive for 1987, although by this time in its history the Italian stage in Formula One was a tentative, to say the least. It wasn't a bad old tub, but it seldom finished. Alex drove it for all it was worth and kept popping up further up the qualifying order than seemed respectable for such a second-division piece of tackle.

Happily, when Beppe Lucchini's new Scuderia Italia got off the ground at the start of 1988, Caffi was the man hired to put behind the wheel. But when they turned up with an old Formula 3000 car at the first race, just to comply with the small print of the FISA Championship regulations, I must say that we were all tempted to wonder whether this wasn't Osella Mk 2. Happily, when the new Sergio Rinland-designed Dallara rolled out onto the circuit at Imola, it became clear that the Scuderia Italia effort was considerably more than halfway serious.

Bugged by mechanical unreliability, Alex never managed to score a Championship point in 1988. But he was consistently doing the same as he managed with Osella — qualifying a funny little car a lot faster than funny little cars should go. This year he has finally got his reward.

However, I must say that I find it enormously depressing that Alex

has been obliged to pre-qualify this season. I am heartily sick that clout with Marlboro earned him the one 'seeded' seat in the Dallara line-up. Yes, I know he finished third in Montreal this year, but to artificially sustain this unpredictable and erratic driver in Formula One at the same time as making a rising star such as Caffi go through the qualifying rigmarole irritates me enormously. Still, at least Alex's hit-or-miss affair was less of a farce in Canada.

Italy is fortunate in having a rich crop of driving talent just about to flower in Formula One. It's difficult to know whether Capelli is better than Nannini, or Modena shows more promise than Larini, and so on, but if there is a Ferrari vacancy at the end of this season I believe it should be offered to Caffi. He has demonstrated a consistent resourcefulness and unobtrusive out-and-out speed almost from day one. And, in the main, he is not a crasher.

I just hope his hometown boy image, and apparent lack of sophistication, doesn't debar him from going further. If it does, I won't be surprised, however. I long ago ceased believing that the progress of a driver in Formula One was always achieved purely on merit. ■



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# BENETTON '89

DAVID TREMAYNE



When Gerhard Berger swept to his stylish maiden victory in the 1986 Mexican Grand Prix, having run non-stop on his harder compound Pirellis as the Goodyear runners floundered in his wake, the result finally catapulted Benetton Formula into the real Formula One limelight. It wasn't the company's first Formula One success — that had come when it sponsored Michele Alboreto's Tyrrell 011 in 1983, when the Italian won in Detroit — but it was its first triumph since it bought the struggling Toleman team at the end of the 1985 season.

The win came after a series of impressive showings by both Berger and teammate Teo Fabi. They had dominated in Austria and Fabi had taken pole at Monza, only to run into the seemingly inevitable reliability problems. The upright version of BMW's turbocharged four, designed by Paul Rosche, was the most powerful of all in the turbo era; with some 1350bhp on tap for qualifying, the Benetton B186 needed a good chassis to cope. It had one.

South African designer Rory Byrne had learned a great deal since the first Formula One Toleman struggled manfully to qualify throughout 1981. He quietly put up with the pit lane jokes — even the team called the TG181 Belgrano — and had a measure of revenge the following year when the TG181B proved itself to be a much more effective chassis than its shape might have suggested. By 1986, his work was reckoned to be among the elite, and certainly the B186 was the business. With the most difficult of all victories — the first — under its belt, Benetton seemed poised on the verge of real Formula One success. Three years later, it is still a team at the crossroads. In fact, until the French Grand Prix at Paul Ricard, it spent most of its 1989 season as a team effectively in limbo.

The start of the year marked a luxury for Byrne. For the first time since 1983 he was in the fortunate position of not having to produce an entirely new car immediately. That year there had been the flat-bottom version of the Toleman TG183, followed by the TG184. The TG185 for 1985 was a logical progression, and that was evident in the progress the team began to make.

The Benetton takeover saw the beginning of the new trend, however,



Above: Rory Byrne — a new car every year has been a very tough challenge (Lukas Gorys)  
Opposite page: Peter Collins — mastermind of the Benetton Formula One effort (Lukas Gorys)

where an entirely new car/engine package was needed every year. The B186 used the BMW four in place of Brian Hart's underrated and underfinanced unit of similar configuration. The following season, Benetton switched to its current deal with Ford, necessitating a new B187 to cater for the tiny Ford V6 turbo. No sooner had that begun to make progress, than Ford took the decision to abandon the turbo route a year before the official FISA ban came into force, and to fall back on the final, DFR, development of the trusty Cosworth DFV. Hence, Byrne penned yet another new concept for 1988.

That year has been Benetton's best to date, with the B188 taking seven third places in the hands of Thierry Boutsen and Alessandro Nannini and netting third place in the Constructors' Championship (and the leading atm placing). It was a fine handling machine — in common with all of Byrne's post-1981 creations — but more than that, it was the vehicle into which Benetton finally massaged some real reliability. But for the McLarens, it would have won seven races, and proved a match for the more powerful turbo Ferraris on many circuits. As a result of the stability that the B188 allowed the team to build into its base, 1989 began with high expectations. While Byrne put the finishing touch to his new B189, which would accommodate Ford's all new Cosworth V8, the B188 was expected to remain a competitive proposition which would enable the team to stay well within the points before the B189 promoted it into the winning circle.

Several factors have since worked against such aspirations. The B189 was late, and then appalling luck saw it damaged quite seriously on its first two outings. Nannini shunted it at Snetterton in poor weather, then at Imola a deflated tyre sent it into the barriers again. Meantime, there was a measure of encouragement. Johnny Herbert had taken a sensational fourth on his debut in Rio, with Sandro sixth. At Imola the Italian was third, and he would follow that with fourth in Mexico.

The problems, however, wouldn't go away. The B189 should have made its debut in Mexico, but the programme of testing was



interrupted by a problem with the new Cosworth. Harmonic vibration at certain engine speeds was destroying the crankshaft. As Geoff Goddard and his crew at Cosworth worked on assessment and intermediate rectification, the test programme had to be put on hold. The B189 had been built exclusively round the new unit, since Formula One cars these days are totally integrated packages. The DFR simply wouldn't fit into the envelope, so the team was forced to continue to rely on the B188. Since Imola, it was apparent that the latter no longer worked as effectively as it had in 1988, due to the introduction by Goodyear of revised compound and construction tyres. Now the B188, which was already 30 kilos overweight, simply wouldn't turn in as well as it used to. With his rally style, Nannini was able to throw it around more effectively than the smooth Herbert, who relies on good turn-in. As his performances tailed off, culminating in non-qualification in

Canada, friction and pressure began to develop within the Benetton-Ford-Cosworth triumvirate. Team manager, Peter Collins: "We definitely had a problem at that stage, no question. The engine situation set things back, of course, and we probably wouldn't have been in that position of pressure if we'd been able to run the B189 earlier. It's a much better car than the B188; it's lighter and more powerful, and it handles better. "In this game, however, there is no point in pointing the finger at anyone and trying to apportion blame. What we are doing now is simply getting our heads down and doing as much as we can to get things heading back in the right direction." Mike Kranefuss, director of Ford's Special Vehicle Operations: "We got caught out at a very bad time. It might sound like an excuse, but it isn't. Everything looked fine on the test bench, but then came the problem in the car. We were open about it, and never tried to hide

anything. What's the point in that? "Cosworth has responded really well to the problem, and that's not easy. It needed time to assess the problem and to come up with a cure, and our testing prior to Ricard indicates we've found one." There has been criticism of the manner in which Ford tackles its F1 programme and Kranefuss, as the man in the middle, answering to his superiors in Detroit while also dealing with the international media, is more than aware of it. Ford took the final decision to progress on a new engine in February 1988. A year earlier, Renault had given the nod to preliminary investigation of a new V10, but the official go-ahead didn't come until May 1988. Since then, the Renault RS01 had had one win and three seconds by the Canadian Grand Prix in 1989, while the Ford hadn't even raced. And as for Honda... By the time Ford raced the V8 it intended to compete with the Japanese V10, Honda was already looking to a 1990 V12.

The latter uses its motorsport programme as a university for its engineers, a technique that hasn't escaped Kranefuss. "It's a very good idea, and sure, we're interested. I'm interested. But though more people in Ford are listening, that sort of thing doesn't happen overnight. "Those six weeks we lost early in the B189 programme, through crashes, keep coming back to haunt us but later in the year, if we don't have any more problems, I'd be surprised if our V8 isn't within 10-15bhp of the Hondas." Despite the current glitches in the relationships — an inevitable corollary of problems in such a high-pressure sport — Ford and Benetton are likely to stay together in 1990, each party exuding total faith in its products. The B189 has already proved itself very quick in testing, and prior to its French Grand Prix debut had covered four Grand Prix distances in Nannini and Herbert's hands without problem. With a staff of 106, Benetton ranks just behind the superteams McLaren, Ferrari and Williams, as indeed it does in the overall stakes. With the technical department's resources of Rory Byrne, ably backed by Pat Symonds and John Mardle, Peter Collins, an occasionally abrasive but highly enthusiastic manager, is adamant the ingredients of success exist.

"We've got a good set-up here, and in 1988 we proved we can get the job done", says Collins, despite the controversy aroused by the recent 'suspension' of Johnny Herbert's racing activities. The Briton's replacement by Emanuele Pirro may be permanent, as far as the 1989 season is concerned or he may return if his fitness improves. Collins is still protective of his protege, but realistic enough to see where Benetton's short-term interests lie. "We've proved now that we have a good car, and it's up to us now to do whatever we have to to make sure that we get the results as soon as we possibly can..." The message is clear: the pressure is on for Benetton to start delivering the goods. ■



Herbert — "He will continue to be a part of the team"

Name to watch for: Emanuele Pirro stands in for Herbert from the French Grand Prix onwards



Nannini aboard the B189 — a crucial combination for the team





# KRANEFUSS ON FORD

BY DAN KNUTSON



Michael Kranefuss "If it races and says Ford on it, Kranefuss is in charge."

(Freezing Speed/Blakemore)

Once upon a time Ford was the king of Formula One. At the 1967 Dutch Grand Prix the exquisitely sculptured Ford Cosworth V8 won its first Grand Prix. It was hooked to Jimmy Clark's Lotus. In 1983, Michele Alboreto won in Detroit with his Tyrrell to give Ford its 155th and, to date, final Grand Prix victory. During those years Ford Cosworth-powered cars won 12 World Driver Championships and 10 World Constructors titles. By 1983 the turbo charged era was in full force, and the Ford Cosworth reign of Formula One ended. Ford had a brief and unsuccessful attempt at turbo power before it began concentrating on the new normally-aspirated formula. Now the turbos are gone, and Ford and Cosworth are back with renewed interest and a bigger budget. Their goal: to make Ford a Grand Prix winner again. Michael Kranefuss is the director of Ford's Special Vehicle Operations. Put another way, if it races and says Ford on it, Kranefuss is in charge.

**With Honda reportedly putting US \$50 million a year into its Formula One project, is Ford willing to spend what it takes to beat Honda?**

Kranefuss: "If Honda spends \$50 million, then they think the experience or whatever benefits they are getting is worth \$50 million. Ford Motor Company has come to slightly different conclusions. Still, we want to be able to provide a top team with an engine capable of winning Grands Prix. We will not do this with the approach of dominating every test and qualifying session and winning, 'under all circumstances, every race."

Quite frankly, we do not believe that Formula One is the only racing that gives us benefits. Ford Motor that gives us benefits. Ford Motor Company is involved in NASCAR, drag racing, road racing and off road

racing. We have a huge rally programme and production car racing programme in Europe and most other places around the world. So for us Formula One is certainly the biggest, maybe the most important programme but it's certainly not the only one.

I think our long-term commitment to the sport cannot be debated. But for us to say this is an all out war, would be rather foolish. You have to be realistic. There are no miracles in racing.

You just can't hire 15 guys and say 'alright, instead of developing the new engine in six months we will do it in three weeks'. It's not even a question of money. You can only grow slowly. We have put the Cosworth people into a situation that they know for the next four or five years how much they can count on.



**What is Ford's Formula One budget, or is that classified information?**

"It's classified in a sense because it would be misleading in any case. I mean, who can say how much the electronics staff actually contribute to the programme. Would there be alternatives? Cosworth has an electronics system that is less sophisticated, or you could buy one from Marelli or Bosch. But then you wouldn't be as independent, and for sure you wouldn't be able to expose our engineering community to the experience."

**V10 and V12 engines won the first six races of the season. Why did Ford decide to build a new V8?**

Kranefuss: "Every racing engine is based on the philosophy of the car designer, in Benetton's case, Rory Byrne. The V8 was a consensus amongst Byrne, Cosworth and Ford Motor Company. We felt that the advantage that you could get from a 12 or 10 versus an 8 could be outweighed with a smaller engine, a lighter engine and a smaller car. So at the end of the day it's a compromise."

**Speaking of Cosworth, how has Ford's relationship changed with Cosworth since you contracted them to build the first Formula One motor for the 1967 season?**

Kranefuss: "Basically, responsibility for the design and the development still rests with Cosworth. I don't think that you could do it as timely as you need to do it in racing — specifically in Formula One — if it was done in-house. Furthermore, we have little experience with that type of engine. There are other things, like corporate red-tape and so on that won't allow you to go as quickly as you want to. The Cosworth people have a very good understanding of what it takes to run a Formula One engine."

Where Ford Motor Company comes in today is on the electronics side. Today's race engines cannot be run with mechanically controlled devices like mechanical fuel injection. So that's a very critical part and a major part of Ford's involvement. Then we've got some of our advanced engineering and research people involved with technologies that we ideally would like to develop to the point where we can put them on the race engine and test them — areas like exotic materials, frictionless control, fuel injector sizes and so forth."



Above: The first Ford-Cosworth Grand Prix victory — Jim Clark, Lotus-Ford, Zandvoort 1967 (LAT)  
Below: The last Ford-Cosworth Grand Prix victory — Michele Alboreto, Tyrrell-Ford, Detroit 1983 (John Townsend)



**How does Formula One relate to street car technology?**

Kranefuss: "Obviously Formula One has gone far away from mainstream engineering and mainstream cars. The biggest benefit that we can get out of participation in Formula One is to expose our engineering people — young, bright, hopefully flexible enough to still make changes — to this world of racing where you don't have a six month or 48 month time plan. It's Friday and you have a problem. By Sunday you better come up with a solution. The environment produces engineers who approach things in a different way. In racing you have to be creative. You can't just sit there and say, 'what would my boss say about this?' Or would this actually harm my career?"

This is why we have decided not to do any more factory racing because we have been through these experiences. The young guy who is the chief engineer of a programme probably wants to be vice-president of a programme in 15 years. So he's certainly not going to make the decisions that racing requires. That means go for it. If it's wrong, stop, go another way. That is not the way corporate engineers are made. I think that's the area where Honda gets the most out of their involvement. They have created a generation of engineers who are totally open-minded, totally unspoiled. They just say: 'what's the problem? Let me deal with it.' They don't crumble under pressure — they come up with the solutions."

**You have made several mentions of Ford's electronics programmes...**

Kranefuss: "In the case of electronics, we have actually taken a system that was totally developed for a production engine and turned it into a racing control function. Our system has more capabilities than we ever need to use for our production engines."

The development of our telemetry system has almost got to the point of perfection. The same signals that we read in front of the pits can be transmitted to Detroit at the same time if we want to."

The telemetry system has opened a completely new world. We have learned things we were never aware of. For example, we found out that when the drivers shift down under certain situations the rev counter tell-tale needle never catches up with it. Now you see precisely how many rpm. he uses going into a particular corner. And you see when he shifts down how far the engine goes up, even though it is only for a fraction of a second."

This made our engineers get very nervous, and we started pulling out engines which showed a great amount of over rev. I talked to Jackie Stewart about it. He said we have all been down shifting the same way, so this must have gone on for 20 years. Only now we can see it on our graphs..."

**In American NASCAR stock car racing there is a saying: Win on Sunday, sell on Monday. You can't buy a Benetton at the local Ford dealer. Is there a correlation between winning in Formula One and selling road cars?**

Kranefuss: "Yes, there definitely is correlation. Ford motor sport works for us in many ways: Through dealer programmes, advertising, marketing, image, product, the people that represent us in certain programmes... Bob Glidden in Pro Stock drag racing is an absolute hero to his fans in America. Although we don't sell Pro Stock cars — it's the same unique machinery as a Formula One car — the fact that Bob Glidden, who is loved by millions, races a Ford does us a lot of good. The same applies to NASCAR's Bill Elliot and to some of our other guys."

**How much does Ford get involved in the politics of Formula One — with FISA and the rule-making process?**

Kranefuss: "We tell them that we are going to participate, and that we want assurances of stability, although we know that our influence at the end of the day is virtually non-existent."

We do not get involved in lobbying. We do not get involved in voting for one thing versus the other, or teaming up with other teams. We hope and wish that eventually everybody comes up with a strong sanctioning body like in NASCAR racing. NASCAR makes mistakes, but at least you are dealing with someone who is in a position to overrule those mistakes. That's something I would like to see in Formula One, but Formula One is much more political."

If we come to the conclusion that this is not an area that we should participate in, we will walk away. For what ever reason: If it's become too expensive; too unpredictable; we don't have the right equipment to do it; it doesn't support the type of marketing, PR messages that we like to get across; it doesn't help us in technological areas..."

It's my job to monitor it all, and to be open and honest to our management

in terms of where we are and where we should be two years from now."

**You get to see and hear things inside Benetton and other racing teams that the rest of us never will. What is one of the most frustrating things you encounter?**

Kranefuss: "You have something everywhere in racing that I have seen for many years and that's a team's total incapability of admitting when they have gone wrong. Maybe six months or a year later they will say, 'gee, we have really screwed up.' It takes them tremendous amounts of time to admit it. And not only Benetton but every other team. They try to make you believe that THIS IS THE ONLY WAY. And that they have not done a single thing wrong; it's just circumstances, unfortunate situations that have stopped them from having the ultimate success."

I think everyone in Formula One is trying to copy the style of the best team — McLaren — and I give credit to Ron Dennis and his organisation. It is probably the only team in racing that I have ever come across that takes the emotions out: Pick the right people, pick the right drivers, stick with your concept and always strive for excellence."

People see that McLaren has three transporters and say I have got four. Or McLaren has a new factory so I need to have a bigger one. That doesn't give you the World Championship."

You have to make it work — that's what it comes down to. I can go on and babble about 40 things I like or don't like. It makes no difference. We have made a decision — we are going to come out with a good engine. It's up to me to either get these people to do what I think, or at least listen to what I think, so that I can feel good about the investment Ford is making."

**Overall, though, are you happy with your relationship with Benetton?**

Kranefuss: "Yes, we have to be realistic. Are there any great alternatives available? You are looking at... Lotus is pretty much out of the ballpark right now... so you are looking at Ron Dennis who obviously has no incentives or intentions of leaving the current setup. Frank Williams has done a long term deal with Renault, and it's certainly not Ford's style to go after these kind of things. And the rest? Who is there? In Benetton we have a team that is definitely on the way up. But we still have a way to go if we want to reach the McLaren team. We have drivers who are young and very promising. But they are certainly, as of today, not in the same league as Senna and Prost. So if you put all this together, I think you will see a lot more of the Benetton-Ford in the next couple of years, assuming that everything else is equal." ■



Taking Ford forward: Nannini's encouraging start in the Benetton-Ford B189 in France (Sporting Pictures)



# THE ULTIMATE GRAND PRIX QUIZ

**WIN!**

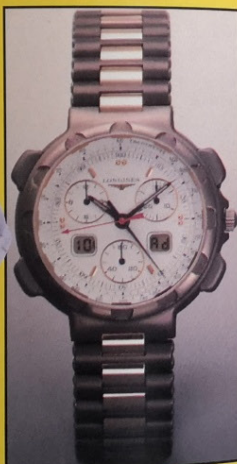
A FABULOUS POSTER

**WIN!**

SUPERB WILLIAMS RENAULT CLOTHING

**WIN!**

THE MAGNIFICENT LONGINES WATCH VALUED AT £700



## HOW?

In each of the next three issues of Prix Editions International we will set you 10 questions. Every person answering any set correctly will then receive the poster absolutely free. Every correct entry per issue will also be entered into the draw for 2 superb Williams jackets and shirts. Everyone who sends in correct entries for all 3 sets of questions will then be entered for the draw for the magnificent Longines watch worth £700.

## SIMPLE?

The first set of questions are listed below and entry information is shown on the panel at the foot of the page.

- At which 1989 race were Thierry Boutsen and Alex Caffi disqualified?
- Which driver finished 3rd in his home town Grand Prix in 1989?
- Which current Grand Prix star lives on the Island of Jersey?
- How many races did McLaren not win in 1988?
- How many Grand Prix teams has Nigel Mansell driven for?
- In which year did Alain Prost win his first World Championship?
- What record did Prost set at the 1987 Portuguese Grand Prix?
- In which year was James Hunt World Champion?
- What is the full name of the current Belgian Grand Prix circuit?
- Where did Gerhard Berger win his first Grand Prix?

Congratulations to Zoe Bloomfield of Headington, Oxford who won a fabulous Williams-Renault travel jacket and polo shirt with the following 10 correct answers to the picture quiz in PEI Vol.3 No.2:

- Carlos Reutemann;
- Nigel Mansell;
- Aguri Suzuki;
- Joachim Luthi (Brabham);
- Alessandro Nannini;
- Alex Caffi;
- Ayrton Senna;
- Roberto Moreno;
- Eddie Cheever;
- Pierluigi Martini.

THE WORLD CHAMPIONS  
Part Four

# BACK TO THE FUTURE



The formative year: Stewart in the Matra-Ford at the 1968 South African GP — the last race won by his friend Jim Clark (L&L)

BY STUART SYKES

To see Jackie Stewart today, you would scarcely credit that it is now twenty years since the little Scot won the first of his three World Championships — but the evidence is firmly logged in that birthdate of 11/6/39, which means John Young Stewart has recently reached the ripe old age of fifty. Given that he is still very much with us, and that elsewhere in this issue Nigel Roebuck recalls one of Jackie's greatest races, this chapter in our World Champions series takes a slightly different slant and asks the man himself to appraise not only his own contribution to Formula One, but also the current state of the sport. Looking back with JYS is, in many ways, going back to the future of Formula One.

Curiously enough, 1969 is not the first date that comes to the Stewart mind. "In fact 1968 prepared me for '69, in the sense that I could easily have won the Championship in '68 instead of finishing second. I had a mechanical failure in the last race, which that year was in Mexico; I had a failure on a fuel pump that pulled the fuel from one side of the Matra to the other. Though there was no obvious conclusion that I would have won that race, because Graham

(Hill) and I were ding-donging many times, passing and re-passing each other almost each lap, so it was a very good race — and in the event I finished sixth.

"Looking back, it was probably a good thing I wasn't World Champion till '69, because '68 allowed me to understudy, if you like, Graham's Championship: I attended a lot of the same functions, I heard him speak, I was given the Driver of the Year award by Britain's Guild of Motoring Writers — all of those being things related to preparation for taking over the mantle of World Champion.

"So I think, when I did win the title for the first time in '69, I was a better-prepared person. I was able to carry the title, media-wise, and broaden it into being a bigger thing than had been used by most of the drivers up to that point. Although I'd love to have won the World Championship four times, I don't think, with hindsight, it was such a bad thing to have waited that extra year!"

A pleasure merely postponed: within a year, thanks to a thrilling victory at Monza, Jackie Stewart had become guidance of Ken Tyrrell had become Scotland's second World Champion

in the footsteps of his revered friend Jim Clark. It was, at the time, the closest-ever finish to a World Championship race: Stewart catapulted out of the Parabolica on the last lap to beat Jochen Rindt's Lotus and the Matra of his own teammate Jean-Pierre Beltoise to the line, with Bruce McLaren fourth — and all four cars covered by 0.19 of a second.

"Winning that way, and with three races still left, gave me an enormous thrill, and of course that was a very big part of my life", says Stewart, who even then was aware in his own mind of the potential growth of the Grand Prix industry as media attention exploded. "There were always a lot of media people about, even then. Perhaps not quite on the scale we see today, but if you actually paid attention to the number of passes issued, for Monaco, say, or a British Grand Prix, it was still pretty huge. Television was just beginning to pay attention, and bear in mind that at that time commercialism had only just arrived (the Gold Leaf Lotuses had hit the scene in 1968). There were a lot of differences, but on the whole a Grand Prix was still a major happening because by 1970 we were doing such things as Playboy panels



on motor racing, which had never been heard of before.

"I was there at the beginning, and I think because I had learned how to deal with the media, because I had been to Indianapolis, because I had done some Can-Am racing, because I had been working with Ford, because I had been with Dunlop, I knew how to use the media and did so better than most people have. And that made me much more of a focus than might have been the case had I just lived life as the normal racing driver at the time. It took extra time, because I saw things happening that I could exercise for my benefit and indeed that of the sport; but until you have reached that level, you don't begin to see those things..."

Twenty years on, with 27 Grands Prix victories surpassed only by Alain Prost, and three World Championships, is JYS still stirred by the spectacle of the sport he left at the end of 1973? "Oh yes: I'm still as excited today at the beginning of a Grand Prix as I was when I was racing. I get an enormous amount of pleasure from it, I am still in love with the sport, I still get goose pimples every now and again — but I don't want to drive in it! It's not as if I were thinking, 'Oh God, I wish I was there'. I have no desire to be back in a cockpit, I'm very comfortable with my position now, even though I have been driving a lot this year. I've driven all the leading cars of the year — the latest at the time of talking was the Williams — and I've been in the Renault 4x4 touring car championship-winning car from last year at Magny-Cours just before Monaco. We went at lap record speeds, so that was fairly easy to drive in comparison to a Formula One car. In those we were nice and slow, taking our time, for very good reasons!"

His many business and media interests apart, JYS is nowadays much taken up by the fledgling career of another budding Scottish driver — his own son Paul, who had raced at Monaco in the Formula Three race on the same weekend as Jackie was surveying Formula One from his own lofty position. How is he coping with this new and rather different role?

"That, I think, is more difficult. I would much prefer, I suppose, that he were not a racing driver. But a racing driver he is, and he's 23 years of age, and has the ambition to do that in his life: I wouldn't stop him, it's more important to me, now that he's committed himself to it, that I help him. My involvement in it,



Personal fitting: JYS put the first Tyrrell F1 on pole at its first race, the 1970 Canadian GP (LAT)

therefore, is not for selfish reasons, but to ensure Paul has the best preparation, the best mechanics, the best equipment that we can find. I can assist in that, and Camel's involvement has played a big part; we've got people like Elf, with whom I have been involved in the past, and others such as Scottish companies Tredaire and Walker's. That type of sponsor has come in purely because many of them see Paul Stewart as the son of a particular father, and if they buy Paul they almost get Daddy thrown in — I don't mind that, because they're doing it for the right reason

and it's good for the sport that companies without previous involvement come in. The more that happens, the broader the base our sport enjoys." The much-mimicked accent is still the same, and JYS is keen that Scotland should move back to the forefront of motor racing as it did when Clark and Stewart were the names feared by Formula One competitors the world over. Paul is joined in the current resurgence of Scottish racing by the likes of Allan McNish: "I'm a great admirer of his", admits Jackie, "he is a likely future competitor in the fullest sense. We don't have a lot



Streets ahead: JYS wins the 1971 French GP, the first on the new Paul Ricard circuit, by half a minute (LAT)



Comfortable in his new position: JYS with Frank Williams at the annual Glenageary shoot Jackie organises in aid of the Mechanical Fund (LAT)

of racing in Scotland, it would be nice to see a couple of youngsters coming on. It needs more than one at a time, though; Jim Clark did a fantastic job, I came in when Jim was still there, and it was much better that there were two of us. When Jimmy died there was just me, apart from Gerry Birrell who hadn't yet got to that level and sadly never

the art, as reflected in the early races of the 1989 season? "I think McLaren have themselves a very good little niche, of course. They know how to do it all, they're not coming to each race guessing at very much — Ron Dennis and his merry men have done a very, very good job. Obviously they've got an ample amount of power, but the chassis is good too. It's going to be quite interesting when Benetton-Ford come along with the new car and the new engine. The decision to go with a V8, rather than the V10 or V12 enjoying current vogue, is one that you can't argue with when you look at the Ford record over the years in Formula One..." Most interesting of all is the slight

hesitancy when Jackie is asked to confirm the general belief that Ayrton Senna is unrivalled in his bid for a second successive World Championship. "Well", he says slowly, "I agree that Senna is certainly the fastest man around — but I would never count out Alain Prost. He is so intelligent and consistent; he's not as fast, of that there is no doubt, and he's not prepared to do the things Ayrton does to get that speed. On Ayrton, in my opinion, to a lot of people the jury is still out, especially with regard to his definition of the term 'champion': there's still more to be found. He's still tremendously athletic in the car, his performances are very exciting to see... but there are still a few edges there to be softened out. But on the other hand there is no substitute for speed — and Senna's the man who's got it."

Stewart should know: only one man has won more World Championships than he, only one has won more Grands Prix, and in a 99-race career he set 17 pole positions and 15 fastest laps. His last race, which would have been his 100th, should have come at Watkins Glen in 1973, when Jackie was ready to hand over the mantle of greatness to young Frenchman Francois Cevert, whose career with Tyrrell he had done so much to foster. Cevert's death in practice for the race prompted Ken and Jackie to withdraw from the race, bringing an even more premature end to the career of a man who, more than any other perhaps, shaped the future of Grand Prix racing for the drivers of today. □



Easy use of the media, too: JYS with his wife Helen and son Paul at Monaco, 1989 (LAT)



BENEVOLENT NEUTRALITY

# LONGINES IN FORMULA ONE

By Stuart Sykes



"This superb Longines watch worth £750 could be yours - see page 54"

Japan, 1987: Nigel Mansell is seconds away from the qualifying accident that will end his quest for the World Championship. He has just seen, on a timing screen in the pit lane where he sits in his Williams-Honda, his provisional pole position time bettered. Time, in all senses, to go to work — and the quest for thousandths of a second will cost him dear. To blame the people who put the information on that screen would, of course, be like shooting the messenger when the news is bad, but the point is made to illuminate the paramount role played in Grand Prix racing by Switzerland's Longines Watch Company.

What do Basle, Helsinki, Chamonix and Brighton have to do with Grand Prix racing? There is no record of Formula One having invaded those European centres, and yet they were crucial stages in the development,

by the Longines Watch Company in a period of 100 years, of a sophisticated timing system for a sport where performance is measured in thousandths of a second.

It was in 1867, in the part of Swiss town Saint-Imier called "Les Longines", that Ernest Francillon set up his watch company. "In the early stages", as Longines' Public Relations Manager Kaspar Arnet explains, "there existed only pocket watches. Somebody said, 'it must be possible to stop that time, with a button or whatever?', and from that idea Longines developed the first stop watch."

The bright idea of stopping time coincided with the explosion of horizons — social, geographical and sporting — at the turn of the century. By 1897 Longines could supply a double-faced chronograph timer with fly-back hand to 1/4th of a second, and the early giants of the modern age

— explorers, pioneer aviators — all used Longines chronometers. But Basle in 1912 was the first breakthrough. Not in motor racing, but in the altogether more graceful sport of athletics. For the 100m sprint, a system was devised whereby the athlete broke a thread at the start — yes, the start — and so released a weight. Its fall made a contact transmitted by cable to a chronograph at the finish; when he crossed the line, the runner broke a second thread to activate that chronograph. It was, however, motor sport, with its ceaseless pursuit of records and ultimate performances, that gave the biggest spur to Swiss ingenuity. While the wire-breaking system was adapted to four-wheel races early this century, it was not until the Brazilian Grand Prix of 1933 that Longines made another major step, as Kaspar Arnet explains. "The idea", he says, "was good — but not its realisation! They made a tube of rubber over the track, filled it with water, and attached a little piston. As soon as a car went over the tube at the finish line, the water was compressed and pushed to the end of the pipe, one of which was fitted with a piston that brought two terminals into contact, these terminals being connected to a bench of chronographs." But air bubbles got into the system, it could not cope with several cars finishing close together, and was generally not reliable enough — not yet.



One of the most acceptable faces of F1: Kaspar Arnet (Ferd Kräling)

Other times: Longines at the finish of the 1933 Brazilian Grand Prix (Longines)

And so to Chamonix. No, cars were not required to undertake the most audacious of hill climbs: it was for the men's downhill World Championship ski competition in 1937 that Longines first used Philips photo-electric cells, whose use would become widespread after World War II. Next came the "Chronocamera", with quartz crystal control of a timer and a series of discs dividing time to 1/100th of a second: cars cut the light beam, a flash illuminated the discs with the times, and they were photographed. This system enjoyed official FIA sanction in 1950 and was used the following year for the Spanish GP. As refinements continued, Longines engineer Pierre Schaller contributed the next major advance in 1954: a quartz clock which, in a 24-hour period, registered a time variation of 0.00 seconds... That seemed close enough, and allowed the development of the "Chronocinegines": a two-lens camera pointing at the finish line and a drum timer driven by a quartz clock. Within a decade, timing to 1/100th of a second was commonplace, and 20 years ago electronic timing came into its own. Timing devices little bigger than a cigarette packet became the norm, in conjunction with chronograph printers. Next stop Helsinki: at the European Athletics Championships that year the Video-Longines system was first used for a major event. No ordinary camera, this: filming athletes crossing the line, it recorded 100 pictures a







second (ordinary TV takes 25) and so permitted timing to 1/100th of a second backed by irrefutable visual evidence. From there to today's "time-keeping computers" was a comparatively short step, but the current system's complexities need some exposition by Kaspar.

"The company took perhaps its most significant step at Long Beach in 1978, when the technician-timekeepers fixed small coders on six cars running in the Grand Prix. The finish line was an aluminium strip working as an antenna; each time one of the six crossed the line, the antenna received a signal transmitted by its coder. That impulse was then translated by a decoder connected to a time-printer to 1/1000th of a second, and to an Olivetti computer automatically processing the times — a collaboration which has grown since that time." Since 1982 Longines has enjoyed an exclusive contract for the timing of Formula One Grands Prix. Data processing and timekeeping technology work together now to provide the fullest possible information of the kind that matters most, not only to drivers and team managers straining for the last ounce of performance, but for the public watching and waiting for statistical confirmation of the spectacle unfolding before their eyes.

To drivers in the pit lane, team personnel on the pit wall, and journalists in the press rooms, Longines' screens make the following information available, whether in practice session or race: the leading times, in sequence from first to last, with driver number and name; the

Nowadays it's a little more sophisticated...

(Longines)

At your service, teams — in this instance Williams — benefit from pit wall statistics

(LAT)



amount of time remaining in the session; each driver's individual laps as they happen; and the speeds through start/finish line and at the point where maximum speed is attained. All of this, thanks to race commentators, can be instantly communicated to the public at large, giving a comprehensive picture of the most objective kind.

To guarantee accuracy, three systems operate in tandem at each race. "Each car", confirms Kaspar, "has a transmitter mounted at the front. The cars have a lot of electronics these days, with multi-function systems transmitting data to the pit lane, so we went right into the front. Each car and transmitter has its own frequency, and these are changed for every car at every race so there is no possibility of managing or manipulating the system."

On each side of the start/finish line are high performance cells (they react to the passage of a 4cm object

at 300km/h), and the impulses are simultaneously recorded on timing machines with printers to 1/1000th of a second. Two operators mark the car numbers on the paper churned out by the printer, the order of their passage being transmitted through earphones by a colleague who reads the numbers of the cars as they pass — the ultimate lap chart!

More than that, the Longines system can also make drivers aware of their potential maximum performances. "We split the circuit up into three sections", Kaspar continues, "and if we take Monaco as an example it goes like this: section one, start/finish line to the Loews turn; section two, Loews to the other side of the tunnel before the chicane; section three, chicane back to start/finish line. So we can construct the driver's ideal time: if he is perfect from section one to two on his first lap, then does the ideal time from two to three next lap, and so on — but of course many of them will never put that "Ideal" time together. But we can show them what the time would be if only they were perfect! Take my Swiss compatriot Gregor Foitek, who failed to pre-qualify at Monaco: on section three he was second-quickest, and to know that is very annoying for the driver." To underline the importance of the sub-dividing of a circuit, Longines, who are officially connected with the Ferrari team, have created no fewer than 42 sections for timing purposes at their Fiorano test track...

Timing calls for good timing, if you take the point: the Longines' staff's weekend begins early, as early as the

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previous Monday, in fact. "So from France to England", chuckles Kaspar, "we have a little bit of a hurry!" Usually the equipment is up and running on Wednesday, Thursday is a test day and one for entering data relative to national races, and on Friday at 08:00 all hell breaks loose — if such a metaphor can be allowed in something as measured and controlled as a Swiss timing centre.

What frustrates Kaspar, commercial animal that he is, is that the very excellence of the Longines system, and the way it is so closely identified with Formula One and other speed sports such as ski-ing, bobsleigh or athletics, obscures the fact that Longines are watchmakers first and foremost. "My own role these days is more commercial — contact with organisers, TV and Press, but firstly our customers. We mean to explore the potential of this sporting event, because Formula One is a very attractive sport. Mind you, I hope it is a bit more interesting on-track this year... Rio, with five teams in the top six, was fantastic, but McLaren still look so strong. But we like to bring customers to an event, to show them something a little bit different: we can talk about watches, sell watches, in a different atmosphere, and build up a lasting relationship. Something a little bit different from walking into

Drivers like it too — Mr Warwick's screen is in matching Arrows colours (Dominique Leroy)



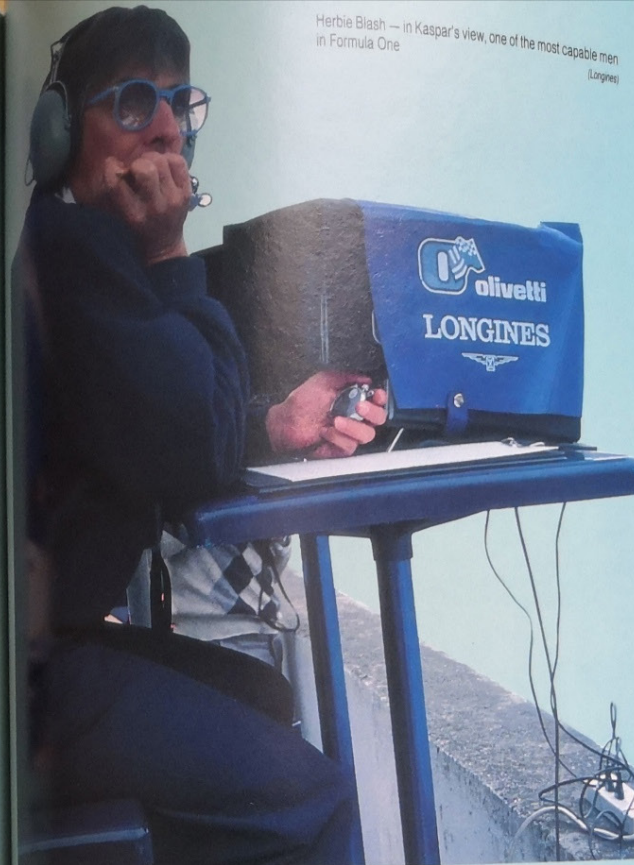
"We went right to the front": Longines wizardry on one of the 1989 Tyrrells. Ken, for Kaspar is one of the men who have made Formula One worthwhile (PE)

the shop and saying 'Good morning, how many oranges do you have left?' We try to make it a little bit exclusive..."

Longines sells something around half a million watches a year, all of them based on the same principles as a Grand Prix car: quality and design. In a decade with the company, Kaspar has forged his own unique niche in the sport, with which his connections go back to early days supporting Swiss driver and great friend Jo Siffert. His first race was the Race of Champions at Brands Hatch in 1969, and when Jo was tragically killed at the same venue two years later Kaspar was deeply touched to be given the driver's well-known Scottish hat as a souvenir by Siffert's mother.

"Thinking back to those days", Kaspar reflects, "the drivers were more easy-going. Oh, they were tough drivers, fast drivers; but I think today there is too much money involved in the system. I don't say a driver earns too much — not for double the price would I go round a track like they do — but I think the money increases the tension. And when they're not racing, they are testing, testing — never out of a cockpit, and when they are, they are all in the hands of their personal physician..."

Herbie Blash — in Kaspar's view, one of the most capable men in Formula One (Longines)



"After Jo, my closest friend among the drivers was Stefan Bellof, and I am still very good friends with Clay Regazzoni. Now we have the young Swiss Foftek, but I think he will need a big slice of luck to make the grade. Today you have to be very, very fast; and even in pre-qualifying he is up against such experienced men as Brundle and Modena, so it's going to be very hard for him. But I'm neutral, really — I don't mind who wins, but I would like the World Champion to be the fastest and the best. It is stupid, I think, when they take even bigger risks than they already do — like Senna and Prost at Jerez last year: the price is too high, isn't it? If they earn such good money, they must make sure they stay around to profit by it. But Jackie Stewart is one of the very few, the best and biggest example of being a businessman after being World Champion. He is still Jackie Stewart, World Champion, and that is the type of man you look up to."

This engaging man began life as a typesetter in, of all places, Ipswich — for four days, which is all it took to fall foul of English trade unionism. "What the hell did I want with that?", was the eminently sensible response. Armed with some goodwill cash from an apologetic employer, K. Arnet headed for the south coast, saw a print firm's nameboard on Brighton prom — and promptly stayed for a year in a union-free environment. Happy memories flood back: "I bought a 1936 MG Midget for £45, and when I left England I gave the keys to a good friend — now the Swiss in me tells me that was a mistake! But I also went to a monotype school in London, and went to see *The Times* being printed. When I got on the tube with my copy of next day's paper, I was very proud when two gentlemen in bowling hats (Kaspar's description) were astounded to see me with tomorrow's *Times* when they only had today's!"

In time-honoured Swiss fashion, Kaspar Arnet and Longines, in a position of benevolent neutrality, perform a service without which no-one would be able to give Grand Prix racing the time of day. ■

Longines' closest links are with Ferrari, whose scarlet cars carry the company's name (Longines)





By Nigel Roebuck

# REAR VIEW MIRROR

“Ah, yes, Silverstone '69...” Jackie Stewart always speaks wistfully of that race. Maybe he doesn't count it as his greatest victory, but certainly it stands in his memory as the most enjoyable race of his life.

“Think about it,” he says. “How many times in your career are you going to have a race like that? There was as good as no difference in ability between Jochen (Rindt) and myself, and the same was true of my Matra and his Lotus. From the start we both went hard at it, and the battle went on and on and on! Off the track Jochen was probably my closest friend; and on it he was a man I trusted implicitly — which is something you need to feel about another driver before you're absolutely comfortable racing with him. Yes, all told, the ingredients were perfect that day...”

Stewart, given hindsight, is right. But qualifying — most of it, anyway — had scarcely suggested a memorable fight between these two. Through the summer of 1969 JYS and the Matra MS80 were on a roll, and in practice little suggested any disruption of the pattern. Rindt and the Lotus 49 had threatened, yes, but Jochen came to Silverstone in July without a

point on the board. The thing never held together.

In all ways the season had been disastrous for him. At Barcelona he started from the pole, and for the first quarter of the race was untouchable — until one of the flimsy rear wing supports buckled, which pitched the 49 into the barriers at 150mph, flipping it onto its back. Bloodied and concussed, Rindt was not fit enough to run at Monaco five weeks later, but he returned for the Dutch, qualified fastest, led until a driveshaft broke. At Clermont-Ferrand he retired, sick and groggy, combination perhaps of the track's ups and downs and his bang on the head in Spain. At Silverstone, though, he felt fine and eager. Earlier in the year, at the International Trophy, he had driven a mesmerizing race in the rain, lagging with drowned electrics in the early laps, then sweeping through the field when the problem cleared. On the line he all but caught the victorious Jack Brabham. He liked Silverstone, had good memories of it.

On Thursday morning his good humour evaporated. When he arrived in the paddock, there was no sign of the Gold Leaf Team Lotus transporter. We need to remember, at this point,

that 20 years ago there were no 'unofficial' practice sessions. All were timed, and all counted. And at Silverstone the first was on Thursday morning — *sans* Lotus.

Rindt was incensed. I can still see the expression on his face as he stood, in civvies, watching the rest go out. And while Jochen stomped around, fuming, team mate Graham Hill made other arrangements for the morning. While Lotus had two drivers and no cars at Silverstone, Brabham's problem was precisely the opposite. A couple of BT26s were on hand, but Jack himself was off games (having broken an ankle in a testing shunt), and Jacky Ickx was late in arriving. Ron Tauranac therefore asked Hill to step aboard, and Graham was happy to oblige.

Difficult to imagine now, isn't it? — a driver skipping from car to car in the course of a meeting. Mind you, difficult to imagine, too, is the non-arrival of a major team for the first morning of practice...

When the transporter did front up, finally, the drivers were dismayed by its contents. Out rolled two of the four-wheel-drive 63s, plus a single 49B for Rindt. On the passenger seat of Colin Chapman's Piper Navajo

was his second-hand car dealer's hat. Still warm.

To his horror Hill learned that his usual 49 had been sold to South African, John Love, while the spare car had been moved on to Jo Bonnier. The Swede, a close friend of Graham's, recognised his predicament at this, the British Grand Prix, and gallantly agreed to hand back his car for this one race, instead taking over one of the dread 63s, then seen by Chapman as 'the future'.

Four-wheel-drive was much in Formula One vogue 20 years ago. In addition to the Bonnier car, Lotus also ran one for John Miles at Silverstone; there was a similar McLaren for Derek, and Matra also brought over their MS84, albeit without the intention to race it.

It was good they did. In the final qualifying session, on Friday afternoon, Stewart crashed. Conclusively quickest the day before, Jackie had just improved further — to 1m 20.2s — and was about to complete another lap, still faster. At Woodcote — the old Woodcote — he clipped the broken inside kerbing, blew the right rear tyre and spun hard into the bank at the exit of the corner.

He was out of the light blue Matra in an instant: “I knew the car had had it, but I was OK, and uppermost in my mind was that Helen and other members of my family were in the pits, and would have seen the whole thing. I wanted them to know I was OK as soon as possible.”

If the accident was bad news for Stewart, it was rather more than that for his hapless team mate, Jean-Pierre Beltoise, who had now to surrender his own MS80 to the master, pass the rest of the weekend in the heavy four-wheel-drive car.

Duel in the afternoon: Rindt still heads the Scot

(LAT)



Silverstone start — and Rindt's Lotus (left) blasts away from pole position with Stewart's Matra in hot pursuit (LAT)

In JPB's hastily-renumbered machine, Stewart rushed out again, and got within half a second of his previous best. But it wasn't enough: by now Rindt had lapped in 1m 20.8s, which put him on the pole. In those days, you didn't qualify one car, then race another...

Jochen, I recall, was delighted. One thing to be on the pole; more important, he suggested, was the financial aspect of the thing. Through the final two-hour session, there was a bonus of £100 awarded to the fastest man in each 30-minute segment. Stewart took three of the four, but the last went to Rindt. Ah, what a man would do for a hundred quid back in 1969... For that matter, there was only a thousand for the winner of the race. Pre-Ecclestone, of course, rewards were listed in the programme notes. Hard to believe, isn't it?

Hulme's McLaren joined Rindt and Stewart on the front row, but after Copse he never had a clear view of

them again. At the end of the first lap Jochen led narrowly from Jackie, with Denny already more than three seconds adrift. The two leaders were setting up a pace impossible for the rest to sustain.

There was actually quite a gaggle disputing fourth place. At first Pedro Rodriguez, having a rare outing for Ferrari, ran there, chased by Bruce McLaren, Chris Amon (racing a Formula One Ferrari for the last time), Piers Courage (in Frank Williams's Brabham), Hill, Jo Siffert (Rob Walker Lotus) and Ickx. But for most of the afternoon all were quite incidental to the race. There was only a single point of focus: at the front.

Nothing to choose between them, really. Rindt's Lotus was marginally better on top speed, Stewart's Matra a shade superior under braking and through the turns. Jochen led for five laps, then Jackie was in front for 10.

On lap 16 it was again Rindt from Stewart, and now it seemed a little more settled. Although the Matra continued to track the Lotus, there was no sign of imminent attack. Was Jackie thinking ahead, as always, thinking to himself that 84 laps of Silverstone were a long way, there was time enough? We didn't know. We waited.

Endlessly they ran like that, routinely going round faster than most drivers had qualified. Such as McLaren, Hill, Siffert and Amon were lapped before half-distance. “You might have expected Jochen to be right on the limit, and Jackie to be neat and calm,” Bruce





observed afterwards, "but when they came past me, it was the other way round." Maybe Stewart didn't have anything left; maybe he was clinging on, hoping...

After 51 laps Rindt's lead was out to three seconds, but thereafter it came down, by tenths and slivers; after 61 the Lotus was firmly in Stewart's sights, and next time around the Matra was in front — and by five seconds. One lap later

Jochen was into the pits.

It was a stupid thing, his problem, a matter of poor preparation. The left-hand rear wing endplate had worked loose, and — through Silverstone's predominantly right-hand corners — was chafing the tyre. Unable to find tools suitable for the job, Lotus mechanics tore off the endplate with their bare hands, sent Rindt back into the race, still second but now 35 seconds away from the lead.

Clearly anger was fired in Jochen, cheated yet again of his first Grand Prix victory. The bulk of the spectators had been plainly with him all afternoon, and they cheered him one last time as he fruitlessly resumed the charge.

It was all for nothing, and he knew it better than they, but still he was carried along by the adrenalin of the day. Until lap 78, with just six to go. Then he was a minute overdue, and more, and finally he went into pit lane again, this time crawling, engine dead. The Lotus, incredibly, was out of fuel.

They sloshed a few gallons in, and once more he returned to the race, now fourth and totally disheartened. With three laps left, indeed, he was passed by Courage, but on the last responded to pit signals, moved past the Brabham again. By now Stewart was on his slowing-down lap. The lap of honour, everyone felt, should have been shared. □

Above left: Rear view mirror — and Rindt's are full of blue (LAT)

Below: Gotchal Stewart is ahead — and Rindt will soon be out of the hunt (LAT)



Rear view mirror — and Jackie sees Jochen looming in his! (LAT)







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# STRAIGHT LINES

## THE DEREK WARWICK COLUMN

Mexico, Phoenix, Montreal: over four weeks away, eight different hotels, never get the suitcases properly unpacked — and they say we lead a glamorous life! The Canadian Grand Prix was the last stage of a four-week marathon trip, and one that didn't bring too much good fortune the way of yours truly, although there was happier news for USF&G Arrows in the inaugural race on the streets of Phoenix.

Highs and lows of Formula One, I suppose you'd have to say about Mexico. I had one of those eye-opening moments in first qualifying, over the notorious bumps on the Autodromo Hermanos Rodriguez: my foot was knocked off the throttle on to the brake pedal, and away it went — nose off the car, Warwick's out of joint. Race day saw me with good balance on the car, but from lap three on I was without third gear, and electrical failure when I was lying fifth ended my race prematurely. From the high ground we moved on to the desert floor of Arizona — and it surely was hot in Phoenix! There has been some criticism, I know, of "Cactus City's" first attempt at staging a Formula One Grand Prix, but in my view the organisers did a fantastic job — except, perhaps, in advertising the race in the right way, which meant the crowd was lower than everyone hoped. But I believe that can pick up, and I personally found the circuit a good, challenging

"Wherever I lay my hat, that's my home" - 4 weeks on the road is hard work (Gore)



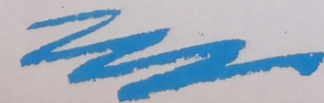
one. Only problem was, I didn't really spend enough time on it... On the Friday I had a pretty massive shunt, on the quick left-hander into the pit straight. The fuel cut-out broke, my engine cut out with it, the rear wheels locked up and I was pitched backwards into the wall. The back end of the Arrows suffered, as did I with a stiff neck and

headache. It should be noted, however, that other leading drivers came to grief on that corner, notably one Alain Prost, who broke a monocoque there for the first time in his years with McLaren.

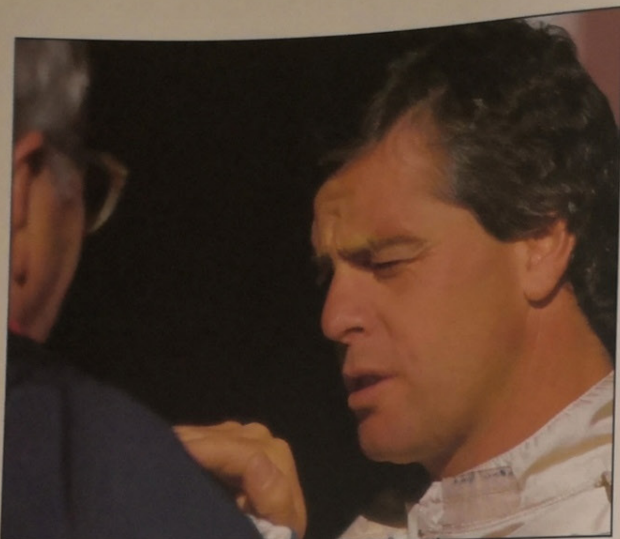
After gearbox problems on day two I started 10th on the grid, got away well, and was planning on a quiet couple of laps to size up the situation, knowing that if I kept out of trouble there was every chance of a finish — and on the Phoenix streets, he who finished might well finish very high up.

Reckoned without Mr De Cesaris, didn't I? Not long after the start he came storming through on the inside, nearly punting Michele Alboreto off and touching wheels with me. The two of us were then in pursuit for five laps, when Michele got through and it was my turn next. Coming into the right-hander at the start of another lap, Andrea went wide, and I thought this was to let me by. But as I dived out to take him, he turned in: I braked, we touched again and my front left suspension was gone. Looking back on it now, I blame no-one but myself. But on the other hand, there have been times when people came up on my inside, and there has been no accident. I can name a dozen other drivers who would have given me room and called me an idiot later!

The consolation was that Eddie Cheever made it on to the rostrum with a







"We always have something to say!"

(Sport)

fine third place, which was doubly rewarding. First of all, because it was a home-coming for Eddie, a Phoenician by birth; and of course, being backed by a major US corporation, this was in a real sense our "home" Grand Prix of the year. The other very enjoyable features of Phoenix were the golf courses (no fewer than 70 within the city limits!) and the desert skies at night, with the stars so bright you felt you should be able to reach out and grab them. It was very nice, for once, not to be rushing from cockpit to aeroplane as we so often do after a race. Pebble Beach, Los Angeles, San Francisco: these were the major ports of call as we filled the gap between

Arizona and Montreal. I loved San Francisco, where it was so easy to see in your mind's eye all those car chases through those hilly streets, and we took in a baseball game for the first time. I didn't quite get the same buzz as I would at a motor race, say, or even from American football, but I got the gist! Montreal raised some more serious issues, however, and certainly took us to cooler climes. I've never experienced traffic as bad as it was in qualifying on the Circuit Gilles Villeneuve, and with the car understeering in the slower corners it was difficult to put it all together at the one time and get the grid position I felt we merited. No change on day two, when we couldn't get

the front tyres working at the right temperature, and as it turned out the race would highlight the tyre issue quite dramatically.

The most dramatic moment, I suppose, did not concern me at all, but Messrs Mansell and Nannini, who dived in after the warm-up lap to change tyres as the weather played havoc with all our decisions. What happened next verged on calamity, however, when they rejoined the circuit thinking the race was under way — when in fact it was just about to start behind them! No blame at all attaches to the drivers, in my opinion, but the teams must question themselves — surely they panicked in the heat of the moment and failed to warn Nigel and Sandro not to go out? I know Alan Rees would have stopped me in that situation... And where was a red light or red flag, or a FISA official?

Issue two was the weather itself. Some people ask me why we race in the wet at all. After all, cricketers, tennis players and golfers all stop when the rain comes down, and they are not exactly risking their lives in the pursuit of their sports. When I had the lead, I actually radioed in to my pit at one point and said the race should be stopped. It may only have been for six or seven laps, but in my view there was a stage in that race where it was too dangerous, it had gone beyond the limit. I could not physically keep the car in a straight line. With hindsight, of course, everything was all right — lots of cars came to grief, but no-one was hurt. But what if someone had been, while we had been required to stay out there in the interest of prime time television or whatever? Fine, go that off my chest... My own decisions on tyres seemed, luckily, to work for me, and I was always more or less on the right kind of rubber for the prevailing and very changeable weather conditions. Also of immense satisfaction was the moment when I dived inside Senna, just for a change, and I admit that gave me a bit of a thrill. Not as much of a thrill as being in the lead for the first time in too long, though — can you imagine how I felt then, and

how I felt a short while later when my engine gave up? Just changing up from fourth to fifth, and it died. Now I know some people are heavy on the gears, but that was taking it a bit too far!

Even more seriously, the failure — the first on an engine this year — cost me and Arrows at least a second place and very probably a win, even if it would have been by default when the second McLaren expired. After looking competitive at the start of the season, we now move on to circuits which are bound to suit the multi-cylinder engines better, and what edge we had may well be lost. It was a nice feeling to be in the lead, to know I was controlling the race, hadn't put a foot wrong — so the disappointment was huge. Not as hard to get over, funnily enough, as Phoenix: you can afford to be philosophical when you know you're not to blame...

The other interesting point, for me, about Montreal, was to run behind some of the other guys for a while and see how they drive the car in those conditions — and they do it in some very different ways, I can tell you. Some of them rev the hell out of the engine as if they were trying to burn their way through the wet surface to find some grip, rather than driving through it. Still, just as well we're all different, isn't it? And in the traffic, exaggerated by the narrowness of the line on the Montreal track, it was not just the newcomers who were causing the problems; I reckon there are one or two pretty long-in-the-tooth drivers who should have learned how to behave by now, but haven't. No names, no pack drill!

Back, now, to the heart of the European season. If there are doubts about the power circuits where the V8s may suffer against the V10s and V12s, there is one major ray of hope on the Arrows horizon — the opening of our new, £2 million factory in Milton Keynes, with wind-tunnel facility and a host of other features designed to take USF&G into the forefront of Formula One in the Nineties. What is particularly encouraging is the commitment this demonstrates on the part of our sponsors, not only to the future of the Arrows team, but also to that of Formula One racing. The factory is officially opened just ahead of the British Grand Prix, and I look forward to giving you a personal "guided tour" in our next column.



Montreal was wet and dangerous but it was great to lead a Grand Prix again.

(Sporting Pictures)

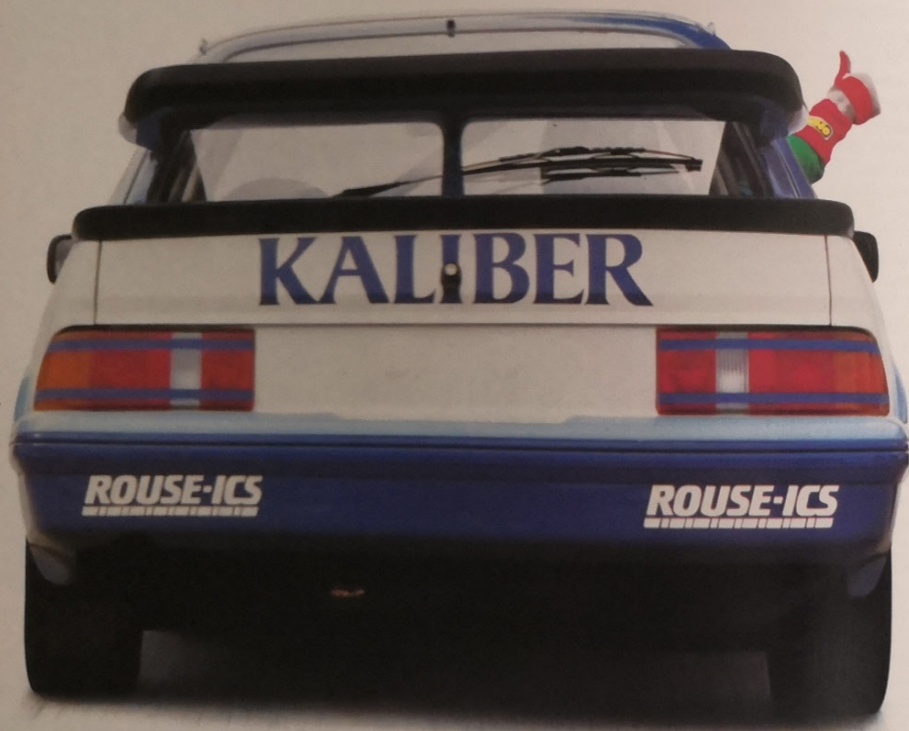
A completely new meaning to "Keeping my head screwed on".

(Sporting Pictures)





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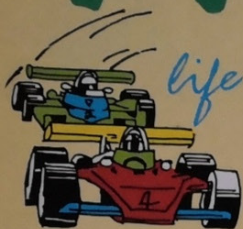
Formula One to racing saloons and, eventually, into the Ford cars you can buy.

Perhaps we should have headed this advertisement A Tale of Three Fords. The two above and yours!



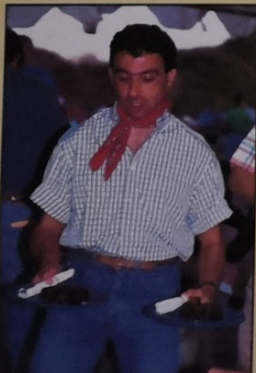


# PITFALLS



*life on the pit lane's lighter side*

**S**uccess, it seems, has its cost. Winning World Championships, for example, puts a team, more often than not, in the last garage before the pit lane exit. This was duly the case for McLaren in Montreal. Whether or not the inclement weather played its part, an unusually high number of drivers stalled at the end of the pit lane while waiting for the green light to let them on to the track. Disgruntled McLaren mechanics complained of having to push-start more cars than they could ever remember. □



We knew Michele's appetite had returned, but surely not to that extent? □



"Gentlemen, start your paddles!" In June Montreal forgets the other race for a moment and gives priority to the Formula One Mechanics' Raft Race, where crews in makeshift contraptions race across the rowing lake behind the pits. No more than four to a raft, no lethal weapons.... Lotus led before being sunk

by McLaren, March and Arrows had a shunt. Benetton lacked straightline speed ("Too much frontal area"). Williams, in a two-pontoon affair made up of fuel drums topped by a carbon fibre under-tray from a Williams Formula One car, won this wet race too.... □

Photographers, too, have their burdens to bear. For Steven Tee, a regular contributor to PEI, that burden is the price of fame — but sadly, it seems, someone else's. One of the ancillary activities at Phoenix was a Benetton "Rodeo", where some enthusiastic female fans rapidly identified our ace lensman as Johnny Herbert. The error was scarcely corrected by Steven's decision to affect a limp... Still, this case of mistaken identity is clearly a form of progress: last time it happened to Steven, Ken Tyrrell hailed him from behind, convinced he was talking to Mrs Tyrrell herself. □

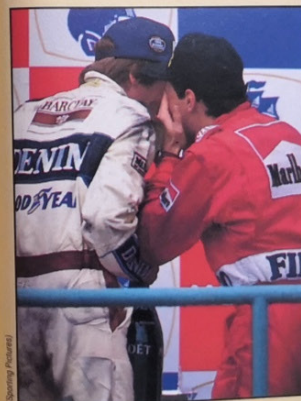


Hear no evil — at least, not in North America: Stefano Modena seems to be reacting badly to the news that teammate Martin Brundle has failed to pre-qualify for the Canadian Grand Prix. □

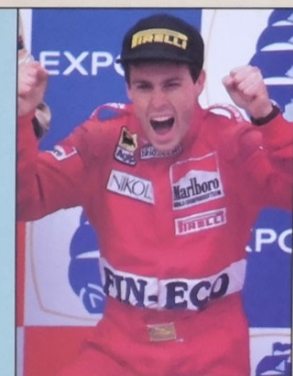
By the time we got to Phoenix, Lotus had failed to score a single point in the 1989 World Championship. This may help to explain the tired and emotional attitude of the legendary Lotus team member Clive, seen here hanging around a Phoenix street corner. Patience, they say, is a virtue: Clive's was rewarded when Nelson Piquet finally broke the team's duck with fourth place in Montreal. □



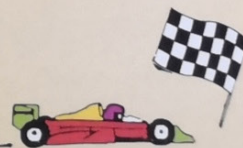
Phoenix may go down in history as the only circuit at which Ayrton Senna has made two jokes. The first was in response to an earnest question about his tyre choice for the race. "Goodyears", was the answer. Further quizzed on his attitude to Mr B. Ecclestone's suggestion about a handicapping system involving mandatory pit stops for race winners, he declared, "Unreal — something from the ET people". □



Cries and whispers: Andrea De Cesaris, that well-known director of Formula One traffic, contrived to finish in the top three at the Canadian Grand Prix, his first appearance on the rostrum since the 1987 Belgian Grand Prix. Two contrasting reactions from the Dallara driver are depicted, one may just be a little over the top, but wouldn't you just love to know what he and winner Thierry Boutsen had found to giggle about? □



Pitfall of all Pitfalls — In his anxiety to get out Stefan Johansson nearly brought the Onyx house down by leaving the Montreal pit lane still attached to his air supply. Result; a black flag. □







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(Keith Sutton)

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